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Foreword from Chair and Chief Executive

It gives us great pleasure to present the 2013/2014 Quality Accounts, which provides a fabulous overview of the world class work that is happening in Counties Manukau each and every day.

As you will read, this document showcases our on-going commitment to quality and safety, particularly with regards to performance, quality standards, patient safety priorities, service improvements and integration initiatives.

One of our biggest achievements this year was meeting all of the National Health Targets. In fact, for the second year in a row we have maintained our record as one of the highest performing district health boards in the country. This saw us surpassing our planned elective surgery volumes, reducing wait times for acute care, providing more smokers with more opportunities to quit, delivering shorter waits for cancer treatment and increasing the number of people receiving heart checks.

We are also maintaining incredibly high standards of quality of service across the organisation, with our fall rates, use of the surgical check list, cross infection rates and standardised hospital mortality rates, all at sector leading levels.

Every year, our staff work methodically to improve quality, reduce costs and work smarter. And every year, we create an environment where people feel empowered to improve patient care and the way they work. We are both always hugely impressed with how much Team Counties has been able to do, just by working smarter.

We couldn’t achieve what we have without the absolute dedication and commitment of passionate staff, who play a pivotal role in delivering high quality care on a daily basis. Their efforts, some of which are captured in this document, remain deeply appreciated by us, our Board and the wider community. We’d also like to acknowledge those who have contributed to this document. The activity described here is a real credit to them and the magnificent work occurring.

While we have achieved a lot, it’s stunning to be a part of an organisation that is so committed - and so restless to push itself further. The momentum that has been built up is considerable and will serve Counties well as we go about realising our ambition of becoming the best healthcare system in Australasia by 2015.
Executive Summary

These Quality Accounts demonstrate that over the 2013/14 year, Counties-Manukau Health has, in continuing its pursuit of the Triple Aim:

- Continued to perform highly and improve on an array of measures of the quality and safety of its services, including System level Measures, National Health Targets and Quality and safety Markers
- Actively looked for, measured, reported and addressed patient harm
- Met high standards on external audit processes
- Developed new structures and models of care to enable more integrated health system delivery, as a key step towards higher quality, higher value health care, particularly for individuals and population groups at high risk of chronic or preventable illness
- Continued to pursue and improve local, regional and national patient safety programmes for hospital services and to lead the implementation of a new patient safety programme in primary care
- Undertaken major quality improvement programmes in services experiencing significant demand pressures
- Opened new state-of-the-art facilities to support high quality care
- Continued to develop workforce and research capabilities with the support of the Ko Awatea centre

These accounts have been endorsed by our Executive Leadership Team and Board, and represent an accurate picture of our high performance.

Dr Gloria Johnson – Chief Medical Officer
Dr Campbell Brebner - Chief Medical Advisor Primary Care

Questions and Suggestions

The Quality Accounts are aligned with many other CM Health accountability documents, including our Annual Report covering the 2013/14 financial and service performance, and our Annual Plan. We will be publishing the Quality Accounts on our internet site: [www.countiesmanukau.health.nz](http://www.countiesmanukau.health.nz)

We welcome feedback on the Quality Accounts which are published for a wide readership. Like all new initiatives, we will evaluate this document and anticipate that improvements will occur in developing the next Quality Accounts. You can provide any comments on the Quality Accounts to us via the Communication Team. [Communications@middlemore.co.nz](mailto:Communications@middlemore.co.nz)
ACHIEVING A BALANCE

Our aim is to be the best for our Counties Manukau people

CM Health strives to be as good as or better than comparable health systems anywhere in the world and the best healthcare system in Australasia by 2015. Being the best in our context means balancing excellence and sustainability to keep the people of Counties Manukau healthy within our available resources.

Counties Manukau - a diverse population

CM Health provides health and disability services to an estimated 521,000 people in 2014 who reside in the local authorities of Auckland, Waikato District and Hauraki District. Our population is growing at a rate of approximately 1.5% per year, the second fastest growing population (after Waitemata) when compared with other DHBs in New Zealand.

Overall, the Counties Manukau population is expected to grow by approximately 8,300 residents each year for the next 11 years. From 2014 to 2025 the number of new residents in Counties Manukau is projected to be 91,600. The aging of the population and increasing prevalence of chronic disease will give rise to growth in demand on health services exceeding demographic growth and this has significant system capacity implications.

Executable Strategies

CM Health has adopted the “Triple Aim” as the framework to organise our strategic initiatives. The Triple Aim comprises:

- improved health and equity for all populations
- improved quality, safety and experience of care
- best value for public health system resources

“Achieving a Balance (AaB)” is the primary portfolio of work that will help us achieve the Triple Aim and the portfolio is actioned through six Executable Strategies, known as programmes of work, identified below:

While all of the strategies address quality and improvement of our healthcare system, this year we are choosing to more extensively profile the work occurring in the ‘System Integration’ ‘First, Do No Harm’ and ‘Patient and Whaanau Centred Care’ programmes spanning across both community and hospital services, under the headings

- Quality Improvement by Health System Integration
- Quality, Safety and Experience of Care
The following diagram shows how “First, Do No Harm” and “System Integration” fit as part of the six executable strategies link to the Triple Aim.

**Figure 1** Triple Aim and executable strategies

- **Triple Aim**
  - Improved quality, safety and experience of care
  - Improved health and equity for all populations
  - Best value for public health system resources

- **Executable Strategies**
  - First, Do No Harm
  - Delivering Patient & Whaanau Centred Care
  - Better Health Outcomes for All
  - System Integration (through Localities)
  - Ensuring Financial Sustainability
  - Enabling High Performing People

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**Future Focus – from Annual Plan 2014/15**

System integration remains a key focus for us in 2014/15 and clinical leaders have this year supported an even more ambitious system redesign through our whole of system programmes that span community to hospital services.

While work continues to undertake major changes in the way services work, we are sustaining our achievements in the government’s health targets and priority areas.

The 2014/15 whole of system (WoS) priority areas identified by clinical leaders aim to increase the scale and pace of system integration. This will be achieved through

- **Active engagement** and commitment across community and hospital providers to jointly challenge and redesign services to achieve the best possible system performance outcomes within available resources.

- **Action plans** that build on the gains completed to date in relation to establishment of all four Locality Clinical Partnerships, At Risk Individuals (ARI), System Redesign and Quality Improvement activities and 20,000 days service development and integration pilots.

These plans are being developed and implemented in stages in 2014 and will be overseen by the Whole of System Strategy Board to enable sustained executive commitment to approved initiatives.

Clinical leaders will be supported through a number of mechanisms, for example the Strategic Programme Management Office, Ko Awatea system improvement and innovation, analytical support, system redesign and knowledge management expertise to enable implementation, monitoring, research, outcome evaluation and applied learning.
Counties Manukau Health strives to be a high performing organization and as good as or better than comparable healthcare systems anywhere in the world. Our goal is driven by the need for continuous quality improvement in order to improve population health, deliver high quality services in a timely manner, respond to increasing demands on confined resources, and address health inequities.

Measuring performance is a key characteristic of a high performing organisation, and is essential for improving quality of care. Therefore, System Level Measures have been implemented to evaluate the overall quality and performance of our healthcare system.

The System Level Measures (SLMs) are to inform our elected governance board, executive leadership team, and clinical leadership, of our performance relative to our strategic plans and progress towards our ‘Triple Aim’ of improved health and equity, improved quality and experience of care, and best value.

The CM Health System Level Measures are a measurement framework, comprising 17 macro level indicators or ‘big dots’ of a healthcare system, which align with the Institute of Medicine’s six dimensions of quality, and reflect a continuum of care. If results are not being achieved on measures, it is an indication to “drill-down” and identify how and where processes need to be improved within our system.

The overall context and initial development was outlined in the 2012/13 Quality Account. Since then measurement and reporting has been embedded into business processes. Measurement Analysis of the SLMs is completed in three phases; (1) SLMs Dashboard (2) SLMs Drill-downs (3) SLMs Comparative analysis.

The SLMs are presented as a Dashboard, which is structured according to our “Triple Aim”. The dashboard is reported quarterly and is based on variation analysis. A drill-down into one of the 17 SLMs is completed monthly to identify how and where the processes of care need to be improved. The purpose of the SLMs drill-downs is to determine the contributing factors or ‘little dots’ that influence the performance of an SLM. This work is reported to the Clinical Governance Group. Comparative analysis with other healthcare systems is also being conducted and will be used as an input to improvement and strategic planning.

Over the page is an example (Figure 2.) of how these measures are presented as a Dashboard, and work is continuing to present the comparative data in a similar dashboard layout.
National Health Target Results

CM Health’s strong performance against the National Health Target expectations in 2013/14 reflects a continued whole-of-system approach, active leadership and staff commitment. Central to achieving the targets are our partnerships with Primary Health Care and PHOs, and their commitment and leadership to focus resources towards improving health system outcomes for the Counties Manukau population.

For more detailed information on our Health Target results – refer to the 2013/14 Annual Report or Ministry of Health

CM Health 2013/14 Performance against National Health Targets

<table>
<thead>
<tr>
<th>Health Targets</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Shorter stays in Emergency Departments</strong></td>
<td>95%</td>
<td>96%</td>
<td>95%</td>
<td>96%</td>
</tr>
<tr>
<td>95% of patients will be admitted, discharged, or transferred from an Emergency Department (ED) within six hours.</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td><strong>Improved access to Elective Surgery</strong></td>
<td>114%</td>
<td>114%</td>
<td>113%</td>
<td>112%</td>
</tr>
<tr>
<td>The volume of elective surgery will be increased by at least 4,000 discharges per year.</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td><strong>Shorter waits for Cancer Treatment</strong></td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>All patients, ready-for-treatment, will wait less than four weeks for radiotherapy or chemotherapy.</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td><strong>Increased Immunisation</strong></td>
<td>91%</td>
<td>90%</td>
<td>92%</td>
<td>92%</td>
</tr>
<tr>
<td>90% of eight-month-olds will have their primary course of immunisation (six weeks, three months and five months immunisation events) on time by July 2014.</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td><strong>More Heart and Diabetes Checks</strong></td>
<td>81%</td>
<td>83%</td>
<td>86%</td>
<td>91%</td>
</tr>
<tr>
<td>90% of the eligible population will have had their cardiovascular risk assessed in the last five years by July 2014.</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td><strong>Secondary Care</strong></td>
<td>95%</td>
<td>95%</td>
<td>95%</td>
<td>96%</td>
</tr>
<tr>
<td>95% of patients who smoke and are seen by a health practitioner in public hospitals, are offered brief advice and support to quit smoking.</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td><strong>Primary Care</strong></td>
<td>59%</td>
<td>69%</td>
<td>77%</td>
<td>99%</td>
</tr>
<tr>
<td>90% of patients who smoke and are seen by a health practitioner in primary care are offered advice and support to quit smoking.</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

Figure 3. National Health Target results.
Shorter Stays in Emergency Care

Middlemore Hospital Emergency Care has consistently met the Length of Stay target since 2009, despite increases in presentation numbers and patients’ health complexity. A number of improvements to facilities including the redesign of the Emergency Care floor-space, the opening of the Medical Assessment area and a designated hospital discharge lounge, have all helped sustain the flow of patients. In addition, there has been attention to staffing rosters, the Hospital at Night team and improving ‘seen by’ times from Speciality teams.

Improved Access to Elective Surgery

For the 2013/14 year, Counties exceeded the agreed target by 11% for elective discharges. This reflects the on-going provision of services required by our community, and the efforts of surgical services to ensure these are delivered within the required timeframes. The “Delivery Redesign Elective Services” (DRES) programme has implemented a range of system improvement processes to support improving productivity.

Shorter Waits for Cancer Treatment

In conjunction with Auckland DHB Oncology services, all Counties patients needing Cancer Treatment continue to be accessing Radiotherapy and Chemotherapy within four weeks. The services monitor this target closely, and processes to ensure on-going achievement are well embedded in ‘business as usual’.

Increased Immunisation

Counties and Primary Health Organisations have been working together to ensure strong performance against this target. Strategies have included on-going nurse leadership and a joint working group for planning and monitoring. There has also been a focus on quality improvement, including use of PDSA cycles and trials using the Well Child Tamariki Ora Quality Improvement Framework and improved use of data to target strategies. A small pilot was undertaken from April - June with all Maaori babies overdue for immunisations referred straight to Outreach. This project was supported by PHO leaders and management.

More Heart and Diabetes Checks

Primary Care reached the 91% target for More Heart and Diabetes checks. PHOs and General Practices contributed significant resources and effort towards achieving this target.

Activities have included provision of after-hours clinics, outreach cardiovascular risk assessment, improved data collection systems and the use of “Testsafe” (regional clinical data repository) data for completion of risk assessments. Practices have improved recall systems, particularly through use of texting to remind patients. Funded phlebotomy services and Point of Care testing also assisted practices to offer Cardiovascular Disease (CVD) Risk Assessments. A dedicated clinical champion acts as a resource, educator and support person in Primary Care.

Better Help for Smokers to Quit

Performance has increased significantly against this target over the past year and Primary Care exceeded the target for the first time (99%) in quarter 4 this year. A dedicated clinical champion has assisted with improving quality systems and General Practice performance. He also works with practices to support activities to identify and reach patients for brief advice and cessation support. Other initiatives that PHOs have undertaken to reach this target include text messaging with brief advice and use of the Dr Info tool to find patients who have not yet had advice.

CM Health has consistently met the secondary care SmokeFree target since June 2012, with 96% of hospitalised smokers offered brief advice and support to quit. This has been achieved through active hospital leadership; on-going training and refreshers for staff; regular audit, feedback and reporting; and emphasising the impact of target activity on patient outcomes.

The proportion of patients referred for on-going support increased 87% in 2013/14, from 1,145 in 2012/13, to 2,142.
Primary Health Organisation Performance Programme – Counties Manukau

This is the first year that Primary Health Organisation (PHO) Performance results are included in the Quality Accounts. These figures are the aggregated results for all the PHOs in Counties Manukau, and there is further variability between the PHOs and also Practices.

The PHO Performance Programme is a quality improvement programme which aims to support improvements in the health of enrolled populations and reduce inequalities through supportive clinical governance and continuous quality improvement processes with PHOs and their contracted providers. The high level aims of the Programme are to:

- Encourage and reward improved performance by PHOs in line with evidence based guidelines; and
- Measure and reward progress in reducing health inequalities by including a focus on high need populations

These measures are contributory to the National Health Targets. There are a further 22 measures covering further elements related to these aspects of care.

More detail regarding these results can be found at PHO PPP Results - Reporting-Back-to-the-Public

Report for April-June 2014 – Key Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Goal</th>
<th>Counties Result</th>
<th>Counties Trend</th>
<th>National</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flu Vaccine Coverage – Total population</td>
<td>≥75%</td>
<td>64.84</td>
<td></td>
<td>66.18</td>
</tr>
<tr>
<td>Flu Vaccine Coverage – High need</td>
<td>≥75%</td>
<td>66.47</td>
<td></td>
<td>64.97</td>
</tr>
<tr>
<td>Cervical Screening Coverage – Total Population</td>
<td>=80%</td>
<td>74.81</td>
<td></td>
<td>79.73</td>
</tr>
<tr>
<td>Cervical Screening Coverage – High need</td>
<td>=80%</td>
<td>67.59</td>
<td></td>
<td>72.55</td>
</tr>
<tr>
<td>Age Appropriate Vaccinations – 2 year old – Total Population</td>
<td>≥95%</td>
<td>93.61</td>
<td></td>
<td>92.98</td>
</tr>
<tr>
<td>Age Appropriate Vaccinations – 2 year old – High Need</td>
<td>≥95%</td>
<td>93.26</td>
<td></td>
<td>92.94</td>
</tr>
<tr>
<td>Age Appropriate Vaccinations – 8 months old – High need</td>
<td>≥90%</td>
<td>91.37</td>
<td></td>
<td>91.46</td>
</tr>
<tr>
<td>Age Appropriate Vaccinations – 8 months old – Other</td>
<td>≥90%</td>
<td>95.27</td>
<td></td>
<td>93.70</td>
</tr>
<tr>
<td>Category</td>
<td>Requirement</td>
<td>% Actual</td>
<td>% Target</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------------</td>
<td>-------------</td>
<td>----------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td>Breast Screening Coverage- High need</td>
<td>≥70%</td>
<td>67.84</td>
<td>68.20</td>
<td></td>
</tr>
<tr>
<td>Ischaemic CVD Detection – Total population</td>
<td>≥90%</td>
<td>108.83</td>
<td>106.19</td>
<td></td>
</tr>
<tr>
<td>Ischaemic CVD Detection – High need</td>
<td>≥90%</td>
<td>129.67</td>
<td>128.15</td>
<td></td>
</tr>
<tr>
<td>CVD Risk Assessment – Total population</td>
<td>≥90%</td>
<td>91.35</td>
<td>83.71</td>
<td></td>
</tr>
<tr>
<td>CVD Risk Assessment – High need</td>
<td>≥90%</td>
<td>89.52</td>
<td>83.10</td>
<td></td>
</tr>
<tr>
<td>Diabetes Detection – Total population</td>
<td>≥90%</td>
<td>125.05</td>
<td>116.60</td>
<td></td>
</tr>
<tr>
<td>Diabetes Detection – High need</td>
<td>≥90%</td>
<td>128.27</td>
<td>123.67</td>
<td></td>
</tr>
<tr>
<td>Diabetes follow-up after Detection – Total population</td>
<td>≥90%</td>
<td>88.86</td>
<td>77.24</td>
<td></td>
</tr>
<tr>
<td>Diabetes follow-up after Detection – High need</td>
<td>≥90%</td>
<td>93.52</td>
<td>85.73</td>
<td></td>
</tr>
<tr>
<td>Smoking Status ever recorded – High Need</td>
<td>≥90%</td>
<td>94.00</td>
<td>91.22</td>
<td></td>
</tr>
<tr>
<td>Smoking Status ever recorded – Other</td>
<td>≥90%</td>
<td>95.71</td>
<td>92.18</td>
<td></td>
</tr>
<tr>
<td>Brief Advice/ Cessation Support /referral provided in last 12 months – High need</td>
<td>≥90%</td>
<td>99.34</td>
<td>88.81</td>
<td></td>
</tr>
<tr>
<td>Brief Advice/ Cessation Support /referral provided in last 12 months – Other</td>
<td>≥90%</td>
<td>100.06</td>
<td>84.15</td>
<td></td>
</tr>
</tbody>
</table>

*Figure 4. PHO Performance Programme*
Quality And Safety Marker results – Health Quality and Safety Commission

In collaboration with all the NZ District Health Boards, the Health Quality and Safety Commission is driving improvement in the safety and quality of New Zealand’s healthcare through the national patient safety campaign Open for better care.

The quality and safety markers (QSMs) help evaluate the success of the campaign and determine whether the desired changes in practice and reductions in harm and cost have occurred. The QSMs are sets of related indicators concentrating on the areas of harm covered by the campaign:

- falls
- perioperative harm
- healthcare associated infections:
  - central line associated bacteraemia
  - hand hygiene
  - surgical site infection
- medication safety (markers coming in 2015)

The process measures show whether the desired changes in practice have occurred at a local level (e.g., giving older patients a falls risk assessment and developing a care plan for them). Process markers at the District Health Board (DHB) level show the actual level of performance, compared with a threshold for expected performance.

<table>
<thead>
<tr>
<th>QSM Description</th>
<th>Baseline</th>
<th>Q3 2013</th>
<th>Q4 2013</th>
<th>Q1 2014</th>
<th>NZ average</th>
<th>Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Falls Percentage of older patients assessed for risk of falling</td>
<td>98</td>
<td>97</td>
<td>100</td>
<td>98</td>
<td>90</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>Percentage of older patients assessed as at risk who received an individualised care plan that addressed these risks</td>
<td>92</td>
<td>95</td>
<td>94</td>
<td>88</td>
<td>90</td>
</tr>
<tr>
<td>Peri-operative Harm Percentage of operations where all three part of the surgical safety checklist were used</td>
<td>86</td>
<td>81</td>
<td>93</td>
<td>90</td>
<td>93</td>
<td>90</td>
</tr>
<tr>
<td>CLAB Percentage of ICU central line insertions fully compliant with bundle</td>
<td>94</td>
<td>93</td>
<td>90</td>
<td>95</td>
<td>97</td>
<td>90</td>
</tr>
<tr>
<td>Hand Hygiene Percentage of compliant moments of hand hygiene</td>
<td>70</td>
<td>75</td>
<td>72</td>
<td>73</td>
<td>70</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Percentage antibiotic given 0-60 minutes before knife to skin</td>
<td>50</td>
<td>70</td>
<td>*</td>
<td>90</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Percentage of patients receiving 2g or more of Cephazolin</td>
<td>74</td>
<td>78</td>
<td>*</td>
<td>68</td>
<td>95</td>
</tr>
<tr>
<td>Surgical Site Infection Percentage of patients receiving appropriate skin preparation</td>
<td>79</td>
<td>83</td>
<td>*</td>
<td>96</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

* Note Q1 2014 Surgical Site Infection results have not yet been released. Full details of the QSM results can be found on the HSQC website: hqsc.govt.nz/our-programmes

The markers chosen are for processes that should be undertaken nearly all the time, so the threshold is set at 90% in most cases. The markers set the following thresholds for DHBs’ use of interventions and practices known to reduce patient harm:

- 90% of older patients are given a falls risk assessment and have individualised care plan to address these risks
- 90% compliance with procedures for inserting central line catheters
- 74% compliance with good hand hygiene practice (Gold Audit June 2014)
- All three parts of the World Health Organisation (WHO) surgical safety checklist used in 90% of operations.

CM Health has made excellent progress to meet the threshold for all the above markers.
For the first time, in the October – December 2013 quarter the baseline of a new set of QSMs relating to Surgical Site Infection were reported. These all relate to hip and knee replacement surgery. The markers are:

- 100% of primary hip and knee replacement patients receiving prophylactic antibiotics 0-60 minutes before incision
- 95% of hip and knee replacement patients receiving 2g or more of cefazolin
- 100% of primary hip and knee replacement patients having appropriate skin antisepsis in surgery using alcohol/ chlorhexidine or alcohol/ povidone iodine.

CM Health is continuing work to meet the thresholds in this new category of QSM. There is further information about this perioperative safety activity in (Pg. 39)

Future Focus

The new Quality and Safety Markers, for the medication safety campaign are currently being developed and will likely be rolled out in 2015.

Serious and Sentinel Events

Every year, DHBs investigate and report all Serious and Sentinel Events occurring to people in hospital service care. Any injury suffered by a patient during their stay in hospital is truly regrettable. CM Health is committed to learning from incidents of serious harm so that similar incidents do not happen again.

Each year, in association with the Health Quality and safety Commission, CM Health releases a summary of the in-depth and comprehensive investigations that take place after every serious incident. In 2014, this report will be released in late September.

CM Health reported 47 serious harm/ adverse events to the Health Quality and Safety Commission for the 2013-2014 year.

Thirty of these related to harm from falls. There were 17 other serious harm/ adverse events reported

In this year’s report, 30 patients were seriously injured after a fall. These injuries included significant head injuries, broken bones, and skin lacerations that required stitches. Injuries suffered by patients when they fall are the most common ones in the hospital. For the purpose of the national release, these 30 incidents will be presented in a summary describing themes and the focus for future improvement.

Falls caused more minor, moderate and severe injuries than any other type of incident. Three patients died shortly after falling. In two of these instances, the injury associated with the fall was not the cause of death. Each of the 30 fall incidents was reviewed to ensure that the comprehensive programme of falls prevention in place at CM Health had been followed.

Understanding where improvements to the programme need to be made and how to better help staff keep patients safe are the main drivers for the review. Over the last year, there have been changes to the falls risk assessment tool to improve the accuracy of assessment. It has also become clear that confusion (delirium) is a common cause of falls in the frail elderly. The Delirium Management Pathway has been
developed and rolled out through services so that the confused patient is identified early and the cause of the delirium is treated quickly.

There were 17 other incidents leading to actual or potential serious patient injury.

The incorrect identification of a patient or their laboratory sample occurred in three of the incidents reported. No significant injury occurred, but these incidents are termed ‘Always Review and Report’ and the findings of these reviews have prompted changes in practice.

Three incidents related to medication prescribing, administration and review of side effects. In three incidents, referrals and assessments did not happen in the expected manner. Because of these cases, the processes have been reviewed with the aim of simplifying and standardising them.

Injuries related to treatment were identified as possibly contributing to the deaths of two patients. In both cases the patients had many complicated illnesses, and the added stress of the operation / infection may have made these illnesses worse.

The full *Serious and Sentinel Events Report for CM Health 2013-14* will be available on our Counties Manukau website following the national release in November 2014.

**Certification**

HealthCERT is responsible for ensuring hospitals, rest homes, residential disability care facilities and other health providers deliver safe and reasonable levels of service for consumers, as required under the Health and Disability Service (Safety) Act 2001 - the legislation that underpins the certification of Healthcare services.

The purpose of the Health and Disability Services (Safety) Act 2001 is to:

- **promote** the safe provision of health and disability services to the public,
- **enable** the establishment of consistent and reasonable standards for providing health and disability services to the public safely,
- **encourage** providers of health and disability services to take responsibility for providing those services to the public safely,
- **encourage** providers of health and disability services to continuously improve the quality of those services.

Certification can be likened to a warrant of fitness that aims to ensure the hospital is providing safe, effective and appropriate care to the people of Counties Manukau. This is a check of systems - to make sure the basics are being done right. But the certification processes also focus on the experience of patients, as they journey through the hospital.

**Hospital Services Certification**

In May 2013, CM Health undertook the regular national Certification audit of inpatient care services, and following that visit by external expert auditors, a Corrective Actions Report identified areas for improvement. This is Year 2 of a three year certification process to continue work on addressing a number of low and moderate level actions from the original Corrective Actions Report.

A written update of progress is submitted six monthly to the Ministry, and there is a planned surveillance visit by auditors occurring in late 2014 / early 2015. Maintaining Certification is an integral part of measuring Quality Improvement and the CM Health goal to be the "best Healthcare system in Australasia by 2015".
Residential Care Facility Certification

CM DHB is also responsible for contracting with providers of rest home, dementia hospital and psycho-geriatric level care delivered in a residential-care setting to provide services. A Health of Older People Programme Manager from CM Health is responsible for ensuring that all facilities meet and sustain the mandatory Certification requirements.

In addition, the programme managers are responsible for addressing any reported incidents and complaints received about Age-related Residential Care providers that come to light within a Certification period. They ensure that complaints are investigated, any issues identified and an appropriate action plan is developed.

CMDHB contracts with 42 Age Related Residential Care facilities, all of which are required to hold Certification to the Health and Disability Services Standards NZS 8134:2008, in order to have a contract for funded services.

At the time of reporting, all the facilities have certification and there are no major risks with any of the certificated facilities. Two providers hold a 2 year certificate, 35 hold a 3 year certificate and 4 hold a 4 year certificate, and there is an overall improvement by facilities. Over the last year, in Counties Manukau Age Related Residential Care providers, the length of certification period has improved for 13 providers (33%) and decreased for one provider (2%). This reduction was due to a change sought for an increase in the level of care provided at the facility. One new provider holds the mandatory one year certification following purchase of an existing facility.

Information about the individual facility certification is available for review. http://www.health.govt.nz/your-health/certified-providers/aged-care?OpenForm

Primary Care Practice Accreditation

ProCare Primary Health Organisation

During the 2013/14 year, 29 Counties Manukau ProCare Practices engaged in the RNZCGP CORNERSTONE® accreditation process. Of these, 3 were New Entry; 26 have or are re-accrediting and of those, 20 have progressed to the 4 year Annual cycle.

Although ProCare has already implemented a Practice Minimum Standard Assessment process in 2012, ProCare Health has engaged in the RNZCGP Foundation Standard. This Standard was released for use in late 2013 and ProCare will commence implementing and assessing practices against this Standard for all non-accredited practices and those that have opted out of the CORNERSTONE® programme from July 1st 2014.

Alliance Health+ Primary Health Organisation

Over 86% of Alliance Health+ General Practices have either achieved full Cornerstone certification or are in cycles 1 or 2 of the Cornerstone accreditation process. The PHO works hard to support and mentor practices to attain this certification.

In addition, Alliance Health+ Trust achieved ISO (International Standards Organisation) accreditation in 2014. A+ is the only PHO in NZ to attain certification against the ISO standards and is extremely proud of the organisation’s management systems and commitment to continuous quality improvement that resulted in this achievement.
IANZ Accreditation – Laboratory and Radiology

International Accreditation NZ (IANZ) is the national technical accreditation body; it is a multi-disciplinary agency that is internationally recognised. Telarc (Testing Laboratory Registration Council) is IANZ’s parent body. The council was established by an Act of Parliament in 1972.

Accreditation provides formal recognition that an organisation is meeting internationally accepted standards of quality, performance, technical expertise and competence. Accreditation entails examination of an organisation’s quality system together with a detailed on-site assessment of the technical competence of key staff and of the methods in use. Assessment teams normally consist of IANZ quality system assessors, technologist and clinician experts to evaluate the technical system.

Radiology

The CM Health Radiology service has been an IANZ accredited service since 2007. In May 2014, the Radiology service was re-accredited after a routine reassessment by IANZ staff and appointed technical experts. The reassessment also included an initial assessment of the Department of Obstetrics and Gynaecology Ultrasound suite and the new CT and MRI scanning service out of Building 58 at the Middlemore Campus.

All departments, inclusive of the Middlemore and Manukau Super Clinic Radiology sites achieved accreditation with no corrective actions issued.

This was an excellent result and a full reassessment will not be required until 2018. The annual surveillance assessment will take place in March of each year.

Laboratory

The laboratory had a full peer review with IANZ in November 2013, to maintain accreditation. It is an independent endorsement of a commitment to ISO 15189, a standard which is specific for Medical Laboratories. This inspection was carried out under the new ISO 15189 2012 revised standards by a team of 3 IANZ assessors and 11 technical experts.

The IANZ assessment of CM Health Laboratory Services was the first IANZ peer-review assessment against the newly published ISO 15189:2012 standard. The scope of accreditation for Point of Care Testing has been extended to include the testing performed using i-STAT instrumentation in the Respiratory Clinic at MSC and in Ward 1 and PCU at Manukau Surgery Centre.

The routine reassessment has confirmed that the laboratory has generally continued to meet the various requirements of accreditation. The continuation of commitment to quality service and continuous improvement was evident. Some areas of concern were identified during the assessment, and these have generated corrective action requests. One of the corrective action requests was partly resolved before the end of the assessment. Once the corrective action requests were resolved, the continuation of accreditation to ISO15189:2012 was recommended without reservation.

The feedback from the IANZ Inspectors was as follows:

“The calibre and professionalism of the operational, clinical and scientific team was acknowledged by the assessment team. Staff members are commended for their dedication, commitment and professionalism. Those staff members directly involved in the assessment process were helpful and open in their many discussions held with the assessors, and they are thanked for their honesty, courtesy and cooperation in facilitating completion of the review process throughout the week-long assessment”.

Three Corrective Action Requests were raised and responded to, with another 123 recommendations from the auditors also being addressed including 25 strong recommendations. There is no time-frame to complete these, but it is expected that the strong recommendations are addressed as soon as possible. Each departmental Team Leader works with their team to respond to the recommendations and updates are sent to IANZ. Many of the recommendations have already been addressed.
QUALITY IMPROVEMENT BY INTEGRATION

Health System Integration

CM Health System Integration is intended to provide a significant focus on patients with chronic illness, high risk and long-term conditions - if we keep people healthy and managing their condition well, we will keep people able to be cared for in the community rather than hospital.

Pulling a range of services, programmes and funding schemes focused on people who live with long-term conditions into one new, integrated programme will reduce overlap and inefficiencies, as well as improving the services we can provide for these people.

Processes are also being improved to increase sharing of information, changing workforce configurations as well as initiatives such as e-referral, tele-health and ‘virtual’ clinics.

The System Integration Programme aims to strengthen our healthcare system through a more local and integrated patient experience for our patients:

- Where patients get the best care possible,
- Where resources meet demand,
- With a focus on prevention and early intervention,
- Bringing about a healthier, thriving Counties Manukau.

Locality Development

Development of the four Locality Clinical Partnerships (LCPs) has progressed well, with a number of locally driven initiatives underway to provide a more integrated healthcare system.

The four LCPs are established in Franklin, Manukau, Otara Mangere and Eastern. The Localities all work closely with the range of health and community support providers in their area and work directly with CM Health and the Primary Health Organisations (PHOs) to facilitate collaborative partnerships.
The Locality General Managers implement strategic plans to enable the development of locally appropriate innovative health solutions. They facilitate linkages between existing health services, create innovative partnerships and cooperation and drive clinical redesign.

All localities focus on patients with chronic illness or long-term conditions through the At Risk Individual (ARI) programme as well as initiatives specific to their community’s needs.

The role of Primary Care is expanding, with CM Health services shifting to localities hubs, aligning with LCPs, or providing more support to primary care. To advance primary-secondary integration and improve patient outcomes, services are being transitioned to being organised and delivered through four Locality Clinical Partnerships (LCPs). Some community-provided healthcare services; such as Home Health care have already transitioned and changes for other CM Health services are continuing. Several of the Locality Clinical Partnership development highlights from the last 12 months are profiled on Pg. 47.

There are also a range of district-wide developments underway, most notably the implementation of the At Risk Individual programme and continued development of clinical pathways and e-referrals to support further system integration.

**At Risk Individuals (ARI)**

The role of Primary Care is expanding, and a new clinically led programme targeting at risk individuals has been launched within CM Health. Practices within Counties are currently transitioning to this new model of care, and it is intended that over 30,000 patients will have been engaged with the programme by 2016.

The At Risk Individuals programme will better support patients with long term conditions by:

- Providing more early intervention and planned, proactive, patient-centred care,
- Enhancing the capability and capacity of the primary healthcare home through:
  - Improved access to specialist and community services,
  - Greater General Practice input to the management of their patients,
  - More flexibility in the use of funding and interventions for patients, and
  - Delivery of services closer to the healthcare home and ultimately the patients home.

Patients enrolled in the ARI programme will:

- Be supported to use as assessment tool such as the Partners in Health or Health Literacy Questionnaire to identify specific health needs,
- Partner with a named care coordinator to understand what services can be available to them,
- Have an e-Summary health record which is able to be viewed across health care providers,
- Develop a goal-based care plan, that focuses on future wellbeing,
Clinical Pathways

Regional clinical pathway development and implementation supports the integration of primary and secondary care to enable the right care, for the right patient in the right place at the right time. This involves defining standard primary care, when and how to utilise additional funding to avoid hospital admission and when patients should be assessed in secondary care.

A regional work programme is underway with the metro-Auckland DHBs and 45 regional static pathways relating to chronic illness, long term conditions and at risk patients have been developed. Counties Manukau Health are now actively implementing five pathways with clinicians.

Future Focus

Implement an integrated electronic decision support tool that enables Clinical Pathways.
Define, develop and implement fifty additional Clinical Pathways to support clinicians.

E-referrals

Since 2012, a region-wide Programme - “CareConnect” has been underway across the Auckland Metro region, with General Practice swapping pen and paper for mouse and keyboard to manage their referrals. Referrals are a critical part of the patient journey, enabling doctors to work together to provide the patient with the right care at the right time.

A large variety of paper-based processes are used to refer patients to hospitals for outpatient appointments, and despite the best intentions and systems, paper gets lost or mixed up and there have been cases where this had had a serious effect on the care of patients.

Waitemata, Counties Manukau and Auckland District Health Boards introduced the system to enable referrals to be sent electronically to the public hospitals in the Auckland region, improving quality of care for patients.

The e-Referrals form has been developed to provide regionally consistent information about patients and their current medical condition. The information collected is the minimum required by healthcare providers at the hospitals to allow accurate grading (triage and prioritisation) of a referral.

In March, the Regional e-Referrals Management System was upgraded. This set the platform for the next stage of e-Referrals, which is e-Triage and Grading. As well as the new technical infrastructure, over 140,000 existing patient e-Referrals were migrated to the new version.
In March, e-Triage commenced for the first DHB service teams: CM Health ORL, Paediatric ORL and Rheumatology. Triage is the process of clinicians determining the priority for patients to be seen in outpatient clinics for a First Specialist Appointment.

Doing this electronically enables the process to be done anywhere, anytime rather than relying on the transport of paper referrals across sites. Clinicians, both in Primary Care and at the hospital have started using e-Triage have reacted positively to the new system.

It also enables timely information to be transmitted back to the referring GPs. The roll-out of e-Triage across further clinical teams will continue until complete across the Auckland metro region.

**Access to Diagnostics**

Over the last 2 years, the Access to Diagnostics Programme has been in place to support General Practice direct access to Radiology (x-rays and scans) diagnostic services.

The programme uses an IT tool to help GPs triage patients appropriately on the spot, and then send an electronic referral to a radiology provider – either in the community or at the hospital. Using this tool also means General Practice can manage their diagnostic budget effectively by ensuring that it is used judiciously and with clinical appropriateness. For CM Health, use of community Radiology providers means that fewer people per month are referred to the Middlemore Hospital Radiology department, thus reducing pressure on capacity that is needed for inpatient hospital demand.
Beyond 20,000 Days

In July 2013 and building from the success of 20,000 Days Campaign, the Beyond 20,000 Days Campaign was launched. 16 additional Collaborative teams from across the Counties Manukau Health sector were established to contribute to the Campaign’s aim:

“to continue giving back healthy and well days to our Counties Manukau community by 1 July 2014”.

The Beyond 20,000 Days Collaborative implemented a range of interventions that put improved individual, family/whaanau care at the heart of everything we do.

By delivering care in a different way, people can stay well, out of hospital, make healthy lifestyle choices and return to work.

**Execution / Results**

- All of the Collaborative achieved their aims and measured the number of days saved.
- Projects have evidence and data to show their value and improvement
- 11 teams will implement new services or making permanent changes to sustain progress made.
- Five teams have returned to business as usual with improvement established.

In addition
- Counties Manukau Health expertise in improvement methodology continues to build.
- Counties Manukau Health and 20,000 Days and Beyond Campaigns have all been well represented in posters and presentations at local, national and international conferences e.g. Health Round Table Innovation Awards 2013, APAC Conference 2013, Pharmacy Awards 2014 and Science Fest 2014.
- Costs have been saved through the days saved and improved efficiencies
- Dashboard and regular reports have been shared with the wider Counties Manukau health sector.

**Inspiring Patient Stories**

Patient experiences and stories have informed the improvement work.

“Achieving dreams” Healthy Hearts - Fit to Exercise Round the Bays team.
Outcomes achieved by Campaign Collaborative Teams

- “How to Guides” published for Very High Intensity Users (VHIU), SMOOTH (Safer Medicines Outcomes on Transfer to Home), Delirium Care; Transitions of Care; Skin Infections & Cellulitis.
- Delivering four Beyond 20,000 Days Learning Sessions and master classes with attendance from all the collaborative teams equipping them to test and make changes for better patient care.

Reduced Length of Stay / Hospital Admission

- ACE (Acute Care of the Elderly) reduced the “step-down of care” rate from 14% to 8%
- Kia Kaha, Manage Better, Feel Stronger has shown a 40% reduction in Emergency Care presentations over 6 months. See more on (pg. 27)
- Feet for Life identified 77 patients with foot complications and of those 51 patients with a complex foot wound. This potentially avoided hospitalisation and amputation for these patients.
- Well Managed Pain provided a multi-disciplinary care plan for people with ‘difficult to treat’ pain.
- SMART (Safer Medical Admission Review Team) enabled a Clinical Pharmacist and Doctors to complete assessments in Emergency Care together to provide safer and timely management of people’s medications.
- Inpatient care for people with Diabetes provided an integrated care plan to help people manage their condition better on discharge.

Increased Access to Community Support

- Supporting Life after Stroke provided new community based specialist rehabilitation for people with stroke in their own home rather than hospital. See more information in Science Fest (pg. 70)
- The Franklin Health Rapid Response delivered co-ordinated and timely service in Franklin. From referral to the first contact with the patient reduced to 1.35 hours. See more information in Locality profile (pg.33)
- Healthy Hearts – Fit to Exercise provided community based rehabilitation for people with heart failure.
- Memory team supported people with Dementia, their families and carers to live independently in the community.
- Healthy Skins Clinics established services in General Practice to prevent and manage skin infections. Families reported their children were happier and in less discomfort.

For more information on the Campaign Beyond-20000-days

"By having a better understanding about my condition and the support I need to stay well, I can take charge of my own health."

Shannon Wetere, (Left) Feet for Life patient advocate.
Figure 6: Campaign Dashboard

Notes
As the scope of the Beyond 20,000 Days Campaign has expanded, the data for the admissions, length of stay and readmissions now includes ARHP and Mental Health in addition to the Surgical and Medicine divisions— it specifically excludes Women’s Health, Paediatrics and those discharged directly from EC/Short Stay Units. The occupancy graph is now displayed as a rate to reflect the data shown in the Daily Dose e-newsletter.

Analysis
All graphs continue to demonstrate predominantly normal variation only. Admissions showed a sustained period above the centreline (12 months) but this has not sustained with the last 3 months being below.

3am Occupancy Rate (Adjusted u-chart)

Average Length Of Stay

Readmissions

Campaign Manager: Diane Doolin
Clinical Lead: David Dawson
Improvement Advisor: Ian Hutchby, Pree Kumar & Matt Cape
Kia Kaha - Manage Better, Feel Stronger

A Beyond 20,000 Days Collaborative with East Tamaki Health Care and Mental Health Services

The recognition that 12-18% of those with Long-term Health conditions (LTCs) are likely to have severe Mental Health and Addiction conditions which significantly contribute to poor health outcomes and increased service utilisation has led to this Collaborative. The presence of unmet psychosocial and cultural needs further adds to poor outcomes and increased service utilization. In particular, the presence of a co-morbid mental health condition also increases risk of admission by up to 3 times for people with LTCs, increases length of stay up to 2 times, and increases use of Outpatient Services by up to 2 times. The result is much increased demand for scarce secondary and tertiary health service resources.

Research has clearly demonstrated that identifying and meeting this need, and any associated psychosocial or cultural need, results in improved outcomes and significantly reduced health service (secondary/tertiary) utilization. Primary Care Mental Health initiatives are in place to provide care for those with mild-moderate mental health need. However there is a large gap in the middle in terms of lack of service provision and resource in which people fall between the cracks. Additionally, many services have lacked the integration needed to focus on both physical and mental health needs.

The Kia Kaha programme started in July 2013. It set out to achieve a 25% reduction by July 2014 in overall hospital and GP utilisation for 125-150 individuals with long-term medical conditions and co-existing severe mental health, addiction, and/or psychosocial issues engaged in the programme. This reduction was achieved by identifying and meeting mental health, addiction, and psychosocial needs; and building self-management skills of these individuals and their whaanau.

In the coming year and building on these foundations, the project expects to maintain:

- At least a 25% reduction in unplanned visits (ED and GP)
- Improvement in attendance to planned/scheduled appointments e.g. specialist appointments, GP recalls
- Decreased emotional distress
- Improved quality of life
- Improved self-management

The pilot expands current Primary Mental Health service and introducing evidence-based interventions in an innovative way.
Rheumatic Fever – reducing the incidence

Acute Rheumatic Fever (ARF) develops as a result of an auto-immune response to infection with group A streptococcus (GAS) in some people. Rates of Acute Rheumatic Fever (ARF) are high in New Zealand compared to other developed countries with the highest rates of the disease seen in Māori and Pacific aged 5-14 years.

Reducing the rate of ARF has been identified as a Better Public Sector (BPS) target to reduce the incidence of ARF by two thirds to 1.4/100,000 by 2017 (all ages).

The Ministry of Health developed a Rheumatic Fever Work Programme funded in DHBs with high rates of ARF. Counties Manukau has the highest number of cases of ARF annually in New Zealand. For the national target to be achieved, success in Counties Manukau will be critical.

The focus of the Ministry of Health’s funded ARF programme is to prevent the spread of Group A Streptococcal sore throats and treat sore throats quickly and effectively in order to decrease the incidence of ARF.

There are a number of initiatives underway to support this.

**Rheumatic fever prevention in CMH**

*Prevent* the transmission of Strep A sore throats

*Treat* Strep A sore throats quickly and effectively

AWHI  PES  Mana Kidz  Sore throat clinics  Awareness raising

**Auckland Wide Healthy Homes Initiative (AWHI)** - AWHI has been established, with Ministry of Health Funding, through a partnership with the National Hauroa Coalition and Alliance Health Plus. AWHI’s key objective is to provide relevant housing solutions for children and their families who are most at risk of developing Rheumatic Fever. These solutions may include insulation, minor repairs and curtains. Children who meet the criteria can be referred to AWHI from the school based clinics, from the Secondary prophylaxis service or from the hospital. By mid-July 2014, the service had received 391 referrals from Counties Manukau services and 275 housing assessments and plans have been completed.

**Pacific Engagement Strategy (PES)** This is being led by Alliance Health+ Primary Health Organisation which is working in partnership with other Pacific providers to provide face to face engagement and awareness raising services in the wider Auckland region. This includes promoting key messages on how to manage sore throats, prevent Rheumatic Fever and how to make healthy housing decisions.

**Mana Kidz** - Mana Kidz is a school based primary care service which includes identification and management of Group A streptococcal throat infections. Currently, there are 61 schools (~23,000 children) in Otara, Mangere, Manurewa and Papakura which offer free sore throat assessment and treatment. Currently, 94% of eligible children are consented for the programme and over 15,000 sore throats have been treated for a Group A streptococcal infection.

Preliminary results from Mana Kidz indicate:

- A decrease in strep-throat positive rates within the schools (11% over one year)
- A reduction in hospital admission rates for skin infections
- Stabilisation of Rheumatic Fever rates in the 5-14 cohort
Rapid Response Clinics - In addition to the primary school-based programme, the Ministry of Health is funding rapid response clinics offering free assessment and treatment of sore throats to those identified at risk of developing ARF (defined as 4-19 years, Maaori, Pacific or Quintile 5). These clinics are located in 19 secondary schools and 30 primary care clinics in Counties Manukau.

Awareness Raising Campaign - The Ministry of Health, in partnership with the Health Promoting Agency (HPA), has developed a winter awareness campaign which is delivering health messages targeted at Pacific and Maaori parents and caregivers of at risk children and young people. This includes radio and television messages, billboards and printed materials.

Additional activity

There are a number of activities being undertaken as part of the Counties Manukau Rheumatic Fever Plan which include;

- reviewing all cases of ARF to better understand the intervention points for preventing ARF,
- improving the systems for our secondary prophylaxis programme,
- working with our Primary Care partners to ensure appropriate management of sore throats through the implementation of the updated National Heart Foundation Sore throat guidelines, and programmes to support Primary Care – see below as an example from ProCare.
- ensuring timely notification of cases to Medical Officer of Health to allow contact tracing to occur.

Key to the success in this work is the efforts of all the partners in the Rheumatic Fever Alliance.

ProCare - improving sore throat management

ProCare and some of its Practices have used audit and Practice Nurse-led initiatives to improve outcomes. The aim was to improve sore throat management by Practice Teams in order to prevent acute rheumatic fever in the high risk population. The audit tool draws on established processes of quality improvement and in particular the Institute of Healthcare Improvement’s Breakthrough Series.

During 2014, 20 General Practice teams involved in the ‘Rapid Response’ sore throat management programme took part in a sore throat management clinical audit process using an approved tool. Areas
for improvement were identified under the domains of assessment, clinical practice, care planning, support for high risk families, and resources.

At the same time, Practice nursing teams were updated and trained in assessment, throat swabbing and provision of antibiotics using standing order. All practices have implemented changes in practice including using up-to-date guidelines, understanding who is at risk, considering health literacy, an advanced electronic form in the patient management system, and utilising nurses for assessment, swabbing and provision of antibiotics.

Nursing Development was included and it is predicted that the 6 month audit in September 2014 will show improved scores in all domains. The use of enhanced nursing roles and the electronic form has already improved sore throat management and this is now measurable. This work is still in the early stages and it will be beneficial to continue this method of improvement with practice teams.

This method is far more resource intensive that just providing clinical updates and education sessions to practice teams. However, the process has already started to show obvious improvement in sore throat management for high risk children. This method can easily be replicated for other child health issues such as skin infections and acute respiratory conditions.

Transitions of Care - Goal Discharge Date

A 20,000 Days project as part of the Transition of Care Collaborative, the development and use of a Goal Discharge Date (GDD) across the Middlemore Hospital wards was initially undertaken in 2012.

The Medicine wards have now embedded the use of setting a Goal Discharge Date as part of the routine admission process. Currently, this date is often set by the admitting nurse for the confirmation to occur at the Doctor’s ward round each morning.

The Goal Date is displayed on the ward information boards, as well as in the electronic Ward information system – WiMs, and is then visible for all health-care professionals involved.

A trial in three wards to display the date at the patient’s bedside is currently underway, so that the patient and families are aware and more informed of the planned date of discharge.

Future Focus

- Ongoing work is needed by all services to embed the clinical and operational importance of establishing the Goal Discharge Date. This will inform and support the philosophy that a ‘discharge plan starts at admission’.
- Surgical services have introduced the process within their wards, and work is underway spread to across all their in-patient wards.
- Clinical Support services, such as Radiology and Allied Health are beginning to use the Goal Discharge Date to prioritise daily workloads and/or patients requiring tests.
- Audit has shown that attention and leadership by staff is still required to ensure the continued establishment of the goal discharge date for all patients, and to improve accuracy of dates set.
**Pacific Health Service Development**

The Fanau Ola approach acknowledges the spirit, heart, mana and inherent dignity of Pacific fanau. Fanau Ola provides a holistic and comprehensive framework, a tailored pathway for our Pacific people and families that encompasses many elements and dimensions of fanau (family) life including their future goals; family and social relationships; cultures and languages; physical, mental, and emotional health and; their unique contexts and circumstances.

Fanau Ola focuses on facilitating Pacific patient and fanau access to ‘better, sooner, more convenient’ health services and programmes across secondary, primary, and community care. For Counties Manukau Health, this has required a commitment to proactively address the needs of fanau, understand their challenges and be responsive to their circumstances.

Fanau Ola is achieved when Pacific fanau are empowered and have the capacity, skills and support to plan and pursue their own futures and when Pacific fanau experience positive health, social, cultural, spiritual, economic, and educational outcomes.

### Facilitating Fanau Interface with Fanau Ola System and Network

1. **Fanau Engagement Consent Enrolment**
2. **Fanau Assessment Analysis Planning**
3. **Fanau Support Services and Care**
4. **Fanau Evaluation Learning Success**
5. **Fanau Sustainability Strategy**

The focus for Pacific Health Development in 2013-2014 has been to implement a Fanau Ola Service in secondary/hospital based care to help Pacific patients and their fanau who frequently return to hospital for specialised care. Our aim is to help those Pacific patients to transition back to home and to keep well at home alongside their fanau, working with primary and community healthcare providers to facilitate that journey.

Designing and implementing this service has required the development of the Fanau Ola workforce, and training Fanau Ola advocates in utilising the framework and tools. The team includes 10 Fanau Ola Advocates, supported by 3 Fanau Ola Social Workers, 2 Team Leaders, a Vulnerable Populations Nurse Specialist, Fanau Ola Architect, Pacific Health Development General Manager, and other Administrative support personnel.

From 1 June 2013 – 30 June 2014, the Fanau Ola Team has engaged with 933 Pacific Patients (Primary Clients) and 3,862 Fanau Members. Referrals are centralised from the following points of entry:

- Daily List (Patients admitted in previous 24 hours)
• Very High Intensive Users (VHIU) Team
• Emergency Department
• Internal Referrals (e.g. from Hospital Wards / Emergency Department)
• Pacific Cardiac Programme

All of these potential patients are then triaged by our Fanau Ola Senior Team with considerations for the number of Emergency Care presentations and Hospital admissions in the last 12 months (and 6 months), number of Did Not Attend Outpatient appointments, the patients’ Medical Condition, Age (with careful consideration from new-born to 18 years), and any clinical Red Flags.

Following the triaging process, patients are allocated to a Fanau Ola Advocates based on ethnicity, age, gender, diagnosis, and special circumstances. The Fanau Ola Advocate then facilitates the Fanau Ola journey, working with a customised Fanau Ola Toolkit including Fanau Ola Presentations / Assessments / Reflections, and a range of planning tools. Protocols, guidelines, and quality control are maintained within the team with ongoing training and review, strengthened by administration and management support. Early results from the first quarter with the new programme have shown a significant impact is being achieved.

Note: Qualitative Data / Stories of Patients and their Fanau indicates improved quality of life and better health outcomes for them – these will be continue to be monitored.

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<th>Fanau Ola Intervention Q1</th>
<th>6 months Pre FO</th>
<th>6 months Post FO</th>
<th>Difference</th>
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<td>96</td>
<td>28</td>
<td>↓</td>
<td>23%</td>
<td>decrease in transfers to IP wards</td>
</tr>
<tr>
<td>Number of inpatient events (3 hrs +)</td>
<td>229</td>
<td>157</td>
<td>72</td>
<td>↓</td>
<td>31%</td>
<td>decrease in IP events</td>
</tr>
<tr>
<td>Number of acute admissions</td>
<td>162</td>
<td>130</td>
<td>32</td>
<td>↓</td>
<td>20%</td>
<td>decrease in acute admissions</td>
</tr>
<tr>
<td>Total number of bed days</td>
<td>954</td>
<td>577</td>
<td>377</td>
<td>↓</td>
<td>40%</td>
<td>decrease in bed days</td>
</tr>
<tr>
<td>Average LOS</td>
<td>4.2</td>
<td>3.7</td>
<td>0.5</td>
<td>↓</td>
<td>12%</td>
<td>decrease in average LOS</td>
</tr>
<tr>
<td>Primary and secondary diagnosis for most recent event</td>
<td>1340</td>
<td>519</td>
<td>821</td>
<td>↓</td>
<td>61%</td>
<td>decrease in # primary &amp; secondary diagnoses</td>
</tr>
</tbody>
</table>

Issues identified from the Fanau Ola Assessments, which the Fanau Ola Advocates have supported Fanau with include the following:
- Lack of support when discharged back home
- Safety issues (domestic violence / child protection)
- Health literacy (lack of understanding of condition / diagnosis / prognosis)
- Pharmaceutical [non]compliance (lack of understanding of medications)
- Caring for Fanau (anxiety about responsibilities in caring for sick Fanau)
- Housing (overcrowding / cold / damp / needing insulation)
- Financial (lack of money – for even basic needs / lack of resources)
QUALITY, SAFETY & EXPERIENCE OF CARE

The “First, Do No Harm” strategy is responsible for implementing quality improvement and safety initiatives across our healthcare system. This includes our participation in national initiatives, and regional campaigns. We also need to ensure quality and safety is incorporated into all local activities. This includes activities spanning the entire sector from hospital, to primary care and residential care.

Harm minimisation not only improves the patient experience, by reducing suffering associated with unintended harmful effects of treatment, but also improves value for money, by reducing waste associated with provision of ineffective services and interventions to reverse harm. In the last 12 months the DHB has continued to promote:

- The national “Open for Better Care” campaign.
- The regional Patient Safety Programme “First Do No Harm – safer care together.”

Clinical Leadership for Safety and Quality

Following significant changes in Ko Awatea in 2013, four new Clinical Leadership roles were created to provide leadership and development of the Patient Safety focus within hospital services:

- Clinical Director Patient Safety and Quality Assurance – this role sits within Middlemore Central – the operational heart of Middlemore Hospital. The Clinical Director is responsible for the patient safety framework, leads the Zero Patient Harm working group, and oversees the Certification and quality assurance processes within the hospital.

- Clinical Director of Infection Services – This role has been developed to lead an amalgamation of the infectious diseases clinical services and infection, prevention and control.

- Clinical Director Medication Safety provides clinical leadership to the newly formed Medication Safety Service which is part of the Clinical Pharmacy department

- Clinical Director Patient and Whaanau Centred Care works in partnership with the Director of Nursing to lead the Patient and Whaanau Centred Care programme.

Hospital Services - Aiming for Zero Patient Harm

Zero Patient Harm is the CM Health Patient Safety initiative for inpatient hospital care and is aligned with the regional First Do No Harm and national Open for Better Care initiatives. The Zero Patient Harm group meets fortnightly and uses Improvement Science methodology to address identified patient safety issues in line with national and international guidelines.

Topics addressed in the Zero Patient Harm programme include

- Allergy Awareness
- Hand Hygiene
- Venous Thrombo Embolus (VTE) prevention
- Environmental Cleaning
- Falls prevention
- Pressure Injuries prevention
- Shift Handover
- Central Line Associated Bacteraemia (CLAB)
- Restraint Minimisation and Safe Practice.

We are able to measure and monitor our progress, both to celebrate achievements and respond to challenges. Highlights and activity undertaken over the last 12 months are outlined further in the Quality, Safety and Experience of Care section of these Quality Accounts

Primary Care - Safety in Practice

The Safety in Practice Programme has commenced in Primary Care. CM Health is supporting Primary Care providers to develop their patient safety systems and processes by using the collaborative improvement methodology.

Aim: To enhance quality improvement capability of General Practices (GPs) within the Auckland region, by focusing on patient safety.

Objectives:
- Augment GP capacity and capability in quality and patient safety improvement methods and processes.
- Prevent and/or reduce harm and improve the quality of care for patients with chronic conditions (At Risk Individuals) through safer and better management of medications.
- Improve and develop GP practice systems and processes, to ensure critical high risk processes are carried out safely and reliably.
- Promote a culture of safety within their working environments.

The Safety in Practice Programme commenced in March 2014 and has established an effective collaborative involving 23 General practices, 6 Primary Health Organisations (PHO), and a core collaborative team of CM Health [sponsor Chief Medical Advisor Primary Care, GP Liaison Clinical Lead] and Ko Awatea staff [improvement advisors, collaborative lead] whilst strengthening contact with the Scottish Primary Care Patient Safety Programme via their Clinical Lead. The Steering Group is made up of Metro-Auckland Region DHBs, PHO and Ko Awatea membership, and a networking website has been developed.


Since then, significant progress has been made in developing “bundles of care” and a “NZ Primary Care trigger tool”, both of which generate confidence that the Safety in Practice Collaborative is on track to develop an effective suite of tools, well adapted to the NZ primary care setting, that can be used to engage a wide range of Primary Care Providers in activities to detect, respond to and reduce patient harm. Initial action focussed on selection and development of Bundles of Care and the Trigger Tool.

Safety in Practice - Bundles of Care

Bundles of Care have now been selected: Warfarin Management; Medication Reconciliation against Electronic Discharge Summary (EDS); Diagnostic Results Handling.

An initial learning session and subsequent facilitated learning session have been held on bundle auditing. GP Practices have engaged with one of these bundles with facilitator support and auditing has started.

Final bundle questions and measurements [the adaptation process from Scottish bundles to New Zealand bundles] are being discussed in the Collaborative and Practices and PDSA cycles used for on-going improvement.
Safety in Practice - Trigger Tool

The Trigger tool for use in NZ Primary Care is decided, and involves adapting Scottish and Manaia (a Northland PHO) trigger tools. The supporting documents for the trigger tool’s use are now complete.

Initial collaborative and subsequent facilitated learning sessions have occurred and the initial General Practices have started to use the trigger tool for structured case reviews.

Future Focus:
In the 2014/15 year the Safety in Practice Collaborative will continue to rollout and will:
- Complete the Evaluation Framework and Outcome Measures following an initial presentation made to Health Quality and Safety Commission and Royal NZ College of General Practice in regard to the programme.

Global Trigger Tool

The Global Trigger Tool (GTT) is a methodology developed by the Institute for Healthcare Improvement (IHI) in 2003 to measure patient harm. It involves using a systematic Clinical Record review process on a random selection of 20 patient charts each month from adult medical, surgical, gynaecology and rehabilitation services.

Triggers are used as flags for patient harms and identified harms are classified according to severity and type. These data allow the calculation of a global patient harm rate for the organisation and the identification of trends over time. Further analyses provide more detailed information about types of harm which informs patient safety initiatives. The information derived from the GTT complements other sources of information about patient harm in the organisation.

Analyses to date (2011-2013) have identified that around 62% of incidents occur as an inpatient events, 14% are associated with a re-admission and 24% originate external to the organisation. Medications are by far the main cause of harm across all groups.

For the more serious harms, medication-related bleeding is the most common type of harm, mostly associated with the use of aspirin and warfarin. For the more minor harms (Category E: temporary and requiring intervention) medication-related constipation, and nausea and vomiting are still the most common types of harm identified, accounting for 48% and 16% respectively. These harms are mostly associated with the use of opioids (mainly morphine). While these may not impact on patient length of stay, they do impact on the patient experience of care and the majority are preventable.

Interventions to improve the processes of care relating to the use of opioids have been initiated in CM Health and are also the topic of the recently launched Health Quality and safety Commission Medication Safety Campaign. This will lend further to support to improvement efforts at Counties.

Future Focus:
This year, CM Health has started using the Mental Health Adverse Drug Event tool to identify medication related harm on a Mental Health Ward.

CM Health is also involved in implementing the Primary Care Trigger Tool as part of a Safety in Practice Collaborative, involving 22 General Practices from the Auckland Region.
Patient & Whaanau Centred Care

The programme set goals for 2013/14, which outlined that the organisation should expect to see:

- The (Acknowledge, Introduce, Identify, Duration, Explanation and Thank You – known as AI2DET) training tool for engagement with patients embedded as business as usual,
- Staff education programmes aligned with patient and whaanau centred care values and strategy,
- Clinical staff documenting patients’ goals as part of the Collaborative Care Planning initiative
- Patient and whaanau/family advisors available to work with patients and clinical staff

As a result, patients and whaanau/family should experience:

- a care team who know who the patient’s key support person is
- family and carers will be welcome and are able to work with the clinical staff to care for the patient
- knowing what to expect when they come into hospital
- knowing what to bring and where to go when they visit clinic
- receiving a copy of their clinic letter
- a pathway in place when they are terminally ill
- all decisions made in partnership with the patient and the important people in their life

Since then, the following has been achieved:

- AI2DET – the development and implementation process is now complete and now provides staff with a tool to achieve exceptional engagement for all patients. The tool is now part of in-house staff CALM communication training.
- The Partners in Care philosophy continues to emerge, with wards championing the approach. This approach is now reflected in signage and the Visitor policy.
- As part of the new facilities opened in 2014, an update to Way finding Signage programme for Middlemore Hospital campus has been completed, including new maps, directory and re-installation of the Rainbow Corridor. Patient information, including appointment letters has been updated.
- The new Patient Experience Survey has been designed and is being implemented, while the national HQSC survey will be ready for first run in late August 2014.
- Patients now receive a copy of Outpatient Clinic letters using ‘Keeping you informed’ clinic letters.
- Advance Care Planning (including patient wishes for end-of-life care) has been successfully implementation at Middlemore Hospital and it is now expanding to Localities and primary care settings. During 2013/14 approximately 2,000 conversations with patients regarding this option have occurred.
- The Patient and Whaanau Experience Programme successfully completed its first training programme, with 75 staff participating. A consumer advocate has been employed for this project group, and 226 consumers were engaged as part of this programme.
Medication Safety Campaign

CM Health has a Medication Safety Service to provide a focused and interdisciplinary approach to medication safety.

The key purpose of the service is to reduce preventable harm from medicines use. A number of medication safety improvement projects are currently being undertaken. The improvement initiatives align with the regional and national programmes for improving medication safety and also with the overall triple aim of the organisation. CM Health has been using the global trigger tool to assess level of harm from medications for almost 3 years and this has been used to inform areas of improvement.

The following improvement initiatives are being undertaken:

- medicines reconciliation at admission/ discharge for high risk patients covers 34 Wards and 716 beds
- prescribing improvement initiative
- allergy and adverse drug reaction information management and recording
- "5 rights" campaign to improve safety of medicines administration
- Green Bag rollout across CM Health wards to improve management of patient own medicines
- Engagement with the national collaborative on High Risk Medicines.

Electronic Medication Reconciliation

Electronic medication reconciliation (e-MR) enables clinical pharmacists and prescribers to obtain the “most accurate” medication history on admission from the patient and clearly communicate at discharge the medication changes that have occurred in hospital to the patient, community prescriber and pharmacy. This is because at least one third of medication errors have the potential to cause patient harm. Medication reconciliation has been shown to halve these errors. (Rozich JD, Resar RK. Medication Safety: One organization’s approach to the challenge. Journal of Clinical Outcomes Management (10):27-34).

Poor communication of information on patients’ medications is the key factor causing medication errors, one third of which have the potential to cause patient harm. In addition, patients with at least one medication missing from their discharge summary are twice as likely to be readmitted to hospital.

CM Health is leading the hospital-wide implementation of electronic medication reconciliation in New Zealand and Australia.

The goal is for 80% of patients at high risk for medication-related harm to have electronic medication reconciliation completed within 48 hours of admission to hospital. Significant improvement work has been achieved by the clinical pharmacy teams to reach more patients sooner in their hospital admission.

Progress during 2013/2014:

- e-MR is now implemented in a total of 75% of beds (716 beds) and 74% of inpatient wards (28 wards), including the implementation into the following specialties and clinical areas:
  - Haematology, Cardiology, Renal, Orthopaedics, Spinal Rehabilitation, Pukekohe Hospital, Franklin Memorial Hospital and Health of Older Persons, Palliative Care, Respite Care, Orthopaedic Interim Care service.
- A study has been initiated to evaluate the effect of e-MR on reducing medication errors and potential adverse drug events.
- A survey of 50 prescribers identified that the majority were satisfied with the usability, usefulness and efficiency of electronic medication reconciliation functionality and believe it helps improve medication safety.

**Figure 7: High Risk Patients with e-MR completed within 48hrs of Admission – Nov 2012-June 2014.**

**Future Focus:**
- Upgrade software to improve usability in emergency care and link with New Zealand Universal List of Medicines for safer medication searching and selection functionality
- Complete implementation of electronic medication reconciliation to the remaining clinical specialties: Gynaecology, Paediatrics and Mental Health.
- Complete the evaluation of electronic medication reconciliation in terms of reduction in medication errors and potential adverse drug events.
- Validate the “patient medication card” through the patient experience programme.
- Complete a survey of pharmacists focusing on the usability, usefulness and efficiency of electronic medication reconciliation functionality.
Reducing perioperative harm is the current focus of the Open for better care national patient safety campaign, in partnership with First, Do No Harm in the Northern Region, to improve patient safety in this key area.

This work links to achievement of the HQSC Quality and Safety Marker (all 3 parts of the checklist are used in 90% of procedures).

CM Health fully supports this campaign and has undertaken various activities since the launch in April 2014 with support from Open for Better Care and First, Do No Harm teams. The official launch and display was held in the Clinical Services Building providing information on the perioperative harm reduction focus with information and resources made available.

A series of on-going promotional events have included
- Clinical Champion posters in both theatre sites
- Clinical Champion attending the Perioperative Mortality Review Committee conference in June.
- Series of collaborative meetings held with key staff to review current processes to determine how to best improve the documentation of the surgical prophylactic antibiotic dosage and timing.

Review and updates of documentation and checklists has now been completed including the
- Anaesthetic clinical form to include clear space to record prophylactic antibiotics.
- Surgical Safety Checklist clinical form
- Surgical admission SACPAC pack.
- Surgical Safety Checklist prompt posters that are now in theatre.

Future Focus

There will be continued regular auditing of the Surgical Safety Checklist use and on-going review and streamlining of the pre-operative check-in process and clinical forms.

Additional promotional activities are planned in theatre for late July/ August/ September to further promote reducing perioperative harm. These include
- further auditing,
- inviting a DHB Board member and senior Executive into Theatre to observe the Surgical Safety Checklist in action, and
- Development of a promotional video to enter into the National Campaign competition.
Other Patient Safety Initiatives

Infection Prevention and Control - Hand Hygiene

Clean hands save lives and cleansing hands before and after contact with patients, procedures, and contact with patients environments is essential for preventing infections. Hand hygiene is one of the most important measures in the fight against healthcare associated infections, making it a key patient safety issue within New Zealand hospitals.

Hand hygiene performance at Counties Manukau Health is 74%, as measured by the June 2014 Hand Hygiene Gold Audit, exceeding the national target of 70% for the fifth consecutive audit. Counties Manukau Health aims to achieve a level of 80% by June 2015.

Over the past year, we have continued implementation of the multi-modal strategy developed in 2012.

Engagement with specific clinical areas and occupational groups has provided local actions likely to lead to improved performance.

This has seen a focus on identification and engagement of “activists-in-place”, central people in networks and leaders who provide a platform for on-going generation of improvement activities. Improvement has been achieved by increasing staff capability and motivation.

In the coming months, the approach will shift to see perceived responsibility move to individual clinical areas. Significant work on clinical engagement has already taken place, involving front-line staff in decision-making and increasing capability to audit and improve practice.

Central Line Associated Bacteraemia (CLAB) - Prevention

Central lines are used to support treatment and monitoring of extremely ill patients by inserting a catheter/ intravenous tube into major blood vessels. They are often left inserted for some time, and have had a high risk of infection. A bacteraemia is a bloodstream infection that can create harm for the patient and require extended periods of hospitalisation. The CLAB programme developed a standard process (“bundles”) for the insertion and maintenance of central lines to prevent the occurrence of CLAB.

Following successful implementation of this process in the Intensive Care Unit (ICU), the insertion bundle is now used in all areas.

The maintenance bundle (care of the line once inserted) has been rolled out to all adult inpatient areas throughout the hospital. CM Health is the first hospital in Australasia to do this. As a result of this programme, there are now have inpatient areas that have had over 400 days without a CLAB; one area has been CLAB free for over 1,000 days.

Work is now focused on developing a maintenance bundle that can be used with outpatient renal dialysis patients to prevent central line infections. This bundle is being tested at the moment.
Pressure Injuries – Prevention

A pressure injury is an area of damaged skin and flesh, sometimes known as a bed sore or ulcers, caused by staying in one position for too long, for example by prolonged sitting or lying. This can happen in the home, in the community and in hospital. They can develop quickly, and if not prevented or treated early, can create an open wound needing surgery or extended periods of hospital care.

Regular auditing of clinical records from 5 patients per ward per month checks for documentation of pressure injury risk and monitors prevalence.

Over the last 12 months, action has been occurring on a number of fronts. A Skin integrity sticker in the patient record enables tracking of where the pressure injury was initially acquired and for accurate coding completion. The sticker allows simple identification and documentation of patients admitted with pressure injuries and was initially implemented in surgical wards. It is now being rolled out to other wards.
A new audit database has been launched allowing quick and simple reporting. This identifies themes for the group to work on, e.g. accuracy of initial assessment, and is helping to improve our rates of intervention and reducing pressure areas occurring.

Staff education and skill development including an E-Learning package launched on the Ko Awatea ‘Learn’ site in July 2013. This incorporates modules on risk assessing, staging, implementing bundles of care and incident/ ACC claim reporting for adults and children.

On International Pressure Injury Day in-service education sessions on all wards made use of a pressure mapping system which visualised the pressure distribution of patients in various positions.

A new clinical “Decision tree” for use of pressure relieving equipment has been tested on wards, and enables staff to link pressure relief equipment to clinical need, reducing variation in clinical practice and suppliers. Supplier contracts are being finalised to support the Decision tree.

Operating Theatre specific Pressure Care “bundles of care” for patient positioning during surgery have been developed and rolled out. Theatres also now use the Waterlow assessment pre-operatively to identify high risk patients and implement the correct bundle intra-operatively.

**Harm from Falls – Prevention**

Reducing the harm from falls is our key focus. The Falls Group works with local champions to test and implement ideas across varied patient areas. Our work continues to touch on many themes; use of data to drive improvement, immediate post-fall learning and how reliably Falls prevention interventions are in place.

Regular auditing is used for monitoring that wards complete a risk assessment with patients who are most at risk of falling, that specific interventions are in place to prevent falls; and harm from falls is reduced.

![Falls with major harm per 1000 bed days](image)

**Figure 10.** Falls with major harm Jan 2012 -June 2014

During 2013/14, we assessed 97% of patients who were most at risk and 94% of patients had interventions put in place.

Over the last year, the work has been strongly driven by local champions on the wards. Working safer is about developing tools that are easy to use and provide clarity on what will help prevent harm to patients.

Here are two stories of their work:
Ward 24 is a ward for older people and used the “Red Chart” concept to focus on patient falls when needing to use the toilet and patients mobilising safely. A patient specific sign is right by the bedside - the patient, their visitors and all staff are guided as to what aids or support the patient needs to mobilise safely. And most importantly, it’s a multidisciplinary team effort.

Ward 10 is an Orthopaedic ward. Staff have tested and refined a Falls Assessment Tool; this has reinforced the importance of assessing patients at risk of falling. The Charge Nurse and Nurse Educator worked closely with the nursing team to develop new ways of preventing falls from happening.

**Venous Thrombo-Embolism (VTE) - Prevention**

Every year about 150 patients at CM Health are known to develop significant healthcare related VTE in the form of deep vein thrombosis (DVT), or pulmonary embolism (PE). A DVT occurs when a blood clot forms in a vein, commonly in the leg, thigh or pelvis. If the clot travels to the lungs, it can result in a blockage of the arteries of the lung (PE), which can cause serious harm, even death.

Medications including heparin and warfarin reduce blood clotting and are used to treat and prevent VTE. Other measures to reduce the risk of VTE include early mobilisation of patients after surgery or severe illness, and use of devices such as stockings to improve blood flow in the legs. In order to ensure that appropriate preventative measures are used, every hospital patient should undergo a VTE risk assessment.

An interdisciplinary group at CM Health is involved in quality improvement-related activities to improve the prevention of healthcare related VTE, as part of the ‘Zero Patient Harm’ initiative.

In the last year, the focus has included the tracking and reporting of the number of healthcare related VTE events. As a result of this initiative, a reduction in the number of healthcare related VTE events has been seen in patients having elective surgery, with particularly good results for elective Orthopaedic Surgery.

![Figure 11. Provoked VTE / 1000 bed days July 2013-June 2014](image)

**Allergy Awareness**

A number of cases of serious patient harm have been reported as a result of patients with known allergies or adverse drug reactions (ADRs) receiving inappropriate medications. One key goal of the Medication Safety Service is improving the way that patients’ medication-related allergies and adverse drug
reactions (ADRs) are identified and managed. Contributing causes that have been identified and need to be addressed are:

- Increasing health care professional knowledge about the National Medical Warning (NMW) and CARM reporting systems and processes;
- Improving the quality of documentation and communication of allergy / ADR status in patients’ clinical notes and Electronic Discharge Summaries (EDS);
- Reduction in complexity of reporting processes.

The Allergy Awareness Group is currently focusing on increasing clinical staff awareness of the need to report allergies and ADRs and on streamlining the reporting processes.

**Restraint Minimisation and Safe Practice (RM&SP)**

Counties Manukau Health is committed to the reduction of restraint use in the hospital. We are guided by Health and Disability Services Standards NZS 8134.2:2008.

Categories of restraint include:

**Personal** - where Security Officers or Mental Health staff hold a patient

**Physical** - using equipment that limits movement,

**Seclusion** – when a patient is placed alone in a designated room

**Environmental** – when there is a restriction to normal access to a patient’s environment.

Enabler Use is when a service provider uses equipment as part of a care plan that limits a person’s normal freedom of movement, for example hospital bed-rails (also known as cot-sides) that is voluntary. Use of enablers is currently being reviewed, as our staff found it difficult to stick to the previous guidelines. A new process is about to be trialled.

![Figure 12. Restraint enabler use compliance Aug 2012 – Feb 2014](image)

The long-term plan for improved Enabler Use is to purchase equipment specifically for CM Health requirements. For example, the current bed-rails are three-quarter length and once in use, mean the patient cannot independently get out of bed. The design and introduction of a shorter rail will help patients benefit from using a bed-rail for positioning, mobility and safety whilst in bed but not restrict normal freedom of movement – so patients are able to get up and out of bed when required.
Clinical Handover

We know from the literature that 60% of all sentinel events are caused by lack of, or poor communication. Communication is the key and we have identified gaps from incidents in our hospital when patients transfer between services. A working party is forming, under the umbrella of Zero Patient Harm, to look at current practice and the gaps in communication at handover between sites and between services with patient safety at the core. We will be looking at where the gaps are in current practice and then working on solutions.

Currently, the group is developing a survey for staff to provide feedback on what the issues and barriers are for them. The working group will have representation from across the hospital including Emergency Care, Critical Care, and the Surgical, Medicine, Adult Rehabilitation/Health of Older People and Paediatric wards. At the planning meetings, there will also be a focus on improving compliance with Certification requirements around documentation - as we know from incidents tracking that this could be improved.

Infection Prevention and Control - Preventing Healthcare Associated Infections

The Counties Manukau community has a high incidence of Multidrug Resistant Organisms (MROs) from ESBL, Entero-bacteriaceae and MRSA organisms. On any given day, around 15% of hospital patients will need to be treated for MROs. The high rates of MRO cases create a greater risk of cross-transmission between patients, increased need and demand for isolation care, and increased use of staff and consumable resources and associated costs. The Infection Prevention and Control service works closely with all areas to manage this risk and follow Infection Control best practice. The team are also systematically checking that the daily care given ensures prevention of transmission. Infection Control staff provide regular feedback to staff about outbreaks and improvements.

The following graph represents the adherence to the screening of patients for MROs, which help differentiate between community and hospital acquisition.

![Compliance to MRO Admission Screening](image)

Figure 13. Compliance to MRO screening Jan2010 - May 2014

The following graph show tracking of the number of cases of Hospital-attributed cross-transmission. This shows that the overall control is improving in the face of increasing community colonisation pressure. This is important to ensure resources are focused on internal process quality.
The following graphs represent the ongoing control results for multi resistant organisms in CM Health, with an average of 0.059 S. Aureus cases per 1000 bed days, and specific tracking for Klebsiella pneumoniae which has been the main organism that has been difficult to manage over the last 4-5 years. Please note the graph measures the rate per 1,000 in-patient days. Clinical investigation indicated that the spike in June 2014 was a random variation with no specific cause.
SERVICE SPECIFIC HIGHLIGHTS

Locality Service Development

Eastern Locality

Virtual clinics and Integrated Care Coordination
Weekly multidisciplinary meetings are now held for people who have been identified as High Risk either through the Very High Intensive User criteria or the Predictive Risk of Readmission tool. The multidisciplinary team includes a general physician, integrated care coordinator, ElderCare coordinator, mental health and well-being coordinator and clinical advisory pharmacist. There is also a virtual clinic at which the general physician receives “for advice” referrals through a secure email system (health link) and provides assistance to general practitioners. This is usually one or two referrals per week.

East Health - Falls Prevention Programme – The Otago Exercise Programme
Over 80 people have been enrolled in the Otago Exercise Programme, with a mean age of 87.2 years old. Analysis of the first participants showed a significant improvement in strength and balance at the six-month completion of the programme.

Palliative care model
The palliative care model has been piloted in 3 General Practices, as part of the At Risk Individual programme, and will be extended to other Practices in October 2014. This programme collaborates with the hospice, including a shared care plan, and has involved the participating General Practices undergoing specific education sessions and completing at least the Level 1 Advance Care Plan online sessions.

Clinical Advisory pharmacists
This 6 month programme provided 47 comprehensive (clinical) medication reviews, and 86 residential care clinical medication reviews, plus a Chronic Obstructive Pulmonary Disease (COPD) care bundle audit for all people with COPD in the Locality (Med-Tech practices). The results of a December 2013 evaluation report, show evidence that there is a reduction in hospital admissions from such reviews, particularly for residential care.

Franklin Locality

The Rapid Response service
This team aims to prevent avoidable presentations to the Emergency Department or admissions to Middlemore Hospital by providing a quick (within 24hours) wrap-around service to support the residents of Franklin to remain safely at home. The development has been supported by the Beyond 20,000 Days Campaign. The Service currently operates Monday to Friday 08:00hours to 16:30hours, staffed by Registered Nurses who offer both telephone and home visit support. Following a brief intervention, the patient is connected back with their General Practice for on-going management and care within 48 hours.

The Service will link with the At Risk Individual Programme when applicable. The Rapid Response service also aims to support patients with a safe and timely transition of care home from Middlemore Hospital inpatient wards. They connect with other community services to facilitate this transition. The Rapid Response Service has been well utilised so far by General Practices within Franklin, St John’s Ambulance Service, the Emergency Nurses at Middlemore Hospital and the Discharge Lounge.
Otara / Mangere Locality

Otara – Total Healthcare
STARcare
The August opening of the first Total Healthcare/ East Tamaki Healthcare ‘STARcare’ centre in Otara marks a watershed moment for the organisation and for primary care in Auckland. Total Healthcare PHO can now bring care usually delivered in the hospital setting by specialists (such as psychiatrists and psychologists) directly to patients in their local community. However the service is not about hospital specialists simply seeing patients in the community - rather it is about integrating care in the community for those patients who require more specialised services than a GP can usually offer.

The goal is to enable patients to gain access to a team of specialised professionals all at one site much closer to where they live than the local hospital. Even more importantly, this “coordinated care” with all the health professionals involved in the patient care is linked through a single IT platform with the patient and GP involved in every step. Integration of care rather than co-location of health providers is the goal. GPs remain at the heart of a patient’s care. From November, they will able to directly refer patients to STARcare.

In the future, further expansion will see other services offered such as podiatrists, dieticians and specialised GPs (GPSis) appointments. A key approach in the STARcare model is to use GPs who already have specialised knowledge and skills in areas such as diabetes management or minor surgery and to expand upon this currently underutilised resource for the benefit of patients. There is a strong philosophy of supporting patient health literacy and ability to self-manage conditions with services such as medication self-management and a variety of nurse-led and allied health clinics. Nutrition courses and cooking demonstrations will commence in September.

Otara is the first STARcare centre to open, but it will soon be followed by others; nearby Dawson Road in Flatbush will offer specialist children’s services coordinated by a paediatrician and also maternity services. Future plans include enabling patients to access specialised tests such as ultrasound, lung function testing and retinal screening in the community.

Patient management
East Tamaki Healthcare made a considerable investment in Business Intelligence Tools with implementation of a custom-designed Practice Management System (Evolution). Additional modules will capture social determinants of patient and families and enable identification, stratification and follow-up for vulnerable households on their register. The new system will also track the performance of each healthcare provider in ‘closing the loop’ for each patient encounter, meaning that appropriate follow up and resolution of caseloads can be monitored and peer review reports can be generated and discussed with each practice team.

Mangere
Integrated Care Coordination
A stakeholder map which identifies who is delivering Health and Social Services in the Mangere Locality, together with a directory of contact details for each organisation has been developed. A series of workshops have been held with Social Service providers to work towards integrated service delivery across the locality. Seven clinical network groups have been formed to support local networking, learning and working collaboratively in the co-design process. A “current state” analysis stocktake of referral patterns from general practice for Diabetes, Diagnostic and Mental Health services has been completed.

In addition to the Nurse-led Diabetes clinics in Mangere, SMOs from CM Health now provide weekly clinics in the Mangere town centre and at General Practices throughout the locality. Multi-disciplinary teams from primary and secondary care meet fortnightly to case-conference complex clients and share knowledge and strategies to improve health outcomes for the people of Mangere.
There is still much to be done to achieve the objectives of the Localities strategy, especially considering that 20% of the transition to wellness sits with health and 80% comes from within through whaanau, social, cultural, spiritual and vocational parameters.

**Manukau Locality**

**Integrated Care Coordination**

A project for greater pharmacy integration to support primary care teams has recently commenced. Work on mapping the GP practices and pharmacists to define three cluster areas for the locality as per the locality business case is underway. Further mapping will include allocating staff from the Home Health team and NASC to be aligned with practices as part of the virtual team to support multidisciplinary work.

The Manukau locality continues to work in partnership with the National Hauora Coalition to develop the whaanau-ora hub for Manukau. A range of health professionals; mainly focussed on health and social needs for adults are engaged to input into the hub concept, and to ensure the hub concept will work to support their work in the community and that interagency approach supports population health needs. Manukau locality has also been networking with existing community network groups to further inform the development of the Whaanau Ora hub, including youth network groups in Manurewa and Papakura.

**Papakura Home Health Care re-design**

He Pou Oranga (Allied Health Enabling Localities Project) continues with a focus on how to better align the allied health workforce to population health needs within the community. The methodology used within He Pou Oranga has been developed further for use within the broader Home Healthcare team at Papakura. Specific work packages arising out of this work will look to reshape the components of:

1. Referral: to streamline processes and ensure that the most appropriate health professional is allocated to care delivery
2. Intervention: reviewing how services are provided as opposed to just home based visits, as well as optimising inter-disciplinary working.
3. Transition: as opposed to discharge to ensure that the healthcare home is integral to the patient journey and smoothing any transition into and out of the service.
Mental Health Services:

Health & Disability Commission and CM Health mental health services: Real-time feedback pilot

In 2013, CM Health Mental Health Services (MHS) were selected as one of 7 sites for the Health and Disability Commissions’ Real-time Feedback pilot during 2013/14. Participation in the pilot enabled CM Health services to contribute to a significant change in the way that mental health services in New Zealand will collect and respond to feedback from consumers and their family/whaanau.

The Mental Health Commissioner is responsible for monitoring Mental Health and Addiction services on behalf of the Ministry of Health. This requires an understanding of consumer and family/whaanau experience in order to advocate for services that better meet needs. To achieve this understanding, the Mental Health Commissioner is developing an electronic system that will allow the public to provide feedback directly to service providers in “real-time.” Services will be able to use the data collected to inform quality improvement and measure the effectiveness of service development initiatives.

The real-time feedback survey is designed to record consumer experience (see Figure 17) and can be completed on tablet devices, smart phones, etc. The survey questions are based on the principles of patient and whaanau/family centered care and include these domains:

- Relationships/Partnerships,
- Communication/Information,
- Continuity of Care/Coordination,
- Family Involvement,
- Recovery and Support,
- Recommendations,
- and a free-form text question.

The reporting framework and data analysis ensures that providers and the public receive online graphics in “real time.”

![Figure 17: Real-Time feedback programme overview](http://www.patientexperiencesurvey.co.nz)

These objectives align very well with the CM Health Partners in Care Programme which also seeks to improve patient and whaanau/family feedback and keep patients and whaanau/family informed.

The pilot sites and the public can now access their results and data in ‘real-time’ via the web link: [http://www.patientexperiencesurvey.co.nz](http://www.patientexperiencesurvey.co.nz)
**Future Focus**

- The Tablet devices provided by the HDC have been installed at the Matariki MHS site in Otahuhu and are readily accessed by mental health consumers and whaanau/family.
- Initial reporting and milestones will be presented to MHS Clinical Governance meeting in August, and a decision made on other MHS locations to trial the devices (and surveys).
- Regional pilot sites are now utilising the second iteration of the survey; and a third is under development. The revisions of the survey are in response to service user and service provider feedback.
- The pilot feedback system will be evaluated during the project with recommendations to the HDC on development required and possible national roll-out in 2015.

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**Surgical and Ambulatory Care: Elective Services**

In 2013/14, CM Health along with all other DHBs faced a significant challenge to meet the Ministry of Health’s elective services health targets and indicators. The current target is

- By 31 December 2014, a waiting time no longer than 4 months (120 days) from acceptance of referral to a First Specialist Appointment (FSA), and no longer than 4 month (120 days) waiting time from offer and acceptance of treatment to delivery of treatment.

During 2013, Surgical and Ambulatory Care services commenced two programmes of work in elective services. These are a Delivery Redesign of Elective Services (DRES) programme and a plan to Reduce Outpatient Follow-up Visits by 20,000. These will enhance the patient journey, deliver services in a clinically appropriate timeframe, and develop a financially sustainable service.

**Delivery Redesign of Elective Services (DRES) programme**

The DRES programme consists of five projects:

1. Enhance the effectiveness and efficiency of Primary to Secondary Care interface across elective services, particularly in Otorhinolaryngology (ORL), Orthopaedics, and Hands.
2. Develop and implement elective service delivery redesign in General Surgery – focusing on patient pathways for varicose vein, bariatric and PR bleed intervention.
3. Develop and implement elective service delivery redesign for Plastics elective services, focusing on patient pathways for breast reconstruction.
4. Develop and implement a regional Urology elective service.
5. Expand the philosophy and practices of Enhanced Recovery after Surgery (ERAS) to other appropriate pathways and surgical specialties, including supporting implementation in other DHBs.

Good progress has already been made in commencing each of these projects. Significant enhancements to elective service delivery both locally and regionally have been initiated across the 5 projects that make up the DRES Programme. These have been more fully described in the Progress 4 report to the MOH that was submitted to the MOH on the due date of 30 June 2014.
1. **Primary to Secondary Care interface:**
The Referral Pathway development has been completed in **Orthopaedics** for Plantar Fasciitis, Achilles Tendonitis, Bunions/Hallux Valgus and Diagnosis and Management of Acute Lower Back Pain.

Primary care pathways have been developed in **Otorhinolaryngology** (ORL) for Hoarseness, Epistaxis, Chronic Sinusitis, Neck Lumps, and Otitis Media.

The **Plastic/Hands** service has completed the consolidation of Hand Therapy as the first partner in Carpal Metacarpal Joint osteoarthritis management in secondary care. This has improved care to 84 patients in the first 12 months.

2. **General Surgery:**
With a focus on the patient, a redesign of the pathway for varicose veins has been completed. Bariatric surgery as part of a national review has seen an updated nursing protocol, and awaits the National prioritisation tool. The Minor Ano-rectal conditions pathway has been remodelled with a specific monthly clinic operating over the last 7 months.

Key outcomes have seen a decreased wait time from 64 to 42 days for patients, and a great reduction in follow-up consultations, through a Patient Initiated card to call system, showing a reduction of SMO Consultant clinics follow-ups from 55% to 2.5%

3. **Plastics:**
A review of the breast reconstruction pathway for Waitemata DHB patients has resulted in moderate to low complexity patients from Auckland’s North Shore receiving their interventions at Waitemata DHB; where previously these were carried out at CM Health. To date this has enhanced the journey for 17 women who have been able to receive their treatment closer to home.

4. **Regional Urology elective service:**
There has been on-going work on the scoping and planning for localisation of CM Health’s Urology services to CM Health facilities. The aim is to better support our patients closer to home and to ensure a coordinated and efficient service across the Auckland region.

6. **Sector Support Network:**
   Enhanced Recovery after Surgery (ERAS) dissemination to other DHBs has been conducted through 4 conference presentations and an on-site ERAS Training day. The presentations were at:
   - Royal Australasian College of Surgeons/NZ College of Anaesthetists 83rd Annual Scientific Congress where 3 separate ERAS topics were presented on 5th, 6th and 8th May 2014.

The training day, “Enhanced Recovery after Surgery: A Course for Specialist, Nurses and other Interested Professionals” was held this year. This strengthened the momentum of ERAS work that is also maintained through a monthly ERAS nurses teleconference.

**Reducing the need for Outpatient Follow-Up visits by 20,000**

With a continuing increase in new patient presentations to CM Health and finite resources, Surgical Services at CM Health has worked hard to optimise capacity demand through better managed follow-ups and discharges in line with clinical need. For some services that has seen the status quo kept, but for
others it has involved changing follow-up criteria, better informing primary care practitioners and enhancing patient empowerment to manage their care at home and in the community.

Through this programme of work over 24,000 follow-ups appointments have been saved through:
  - Greater alignment of discharge with clinical need
  - Standardised and consistent follow-up schedules within departments and pathways
  - Nurse-led discharge roles
  - “See and treat” models of care
  - Patient initiated follow-up and review clinic appointments
  - Nurse-led telephone consult to determine follow up need
  - Allied Health input for the initial consultation and on-going follow-up in conservative clinical management cases.

![20K Follow-up Project](image)

**Figure 18.** Outpatient Follow up Appointment – number of appointments saved

### Gastroenterology:

In 2013, a review of the Gastroenterology service was conducted to better understand the challenges facing the service. There were three major challenges identified:

- Providing satisfactory Gastroenterology care to the CM Health population, as evidenced in part by development of services to enable achievement of the Ministry of Health targets for access to Diagnostic and reduced waiting times for appointment.
- Dealing with large and growing waiting lists for procedures and outpatient clinics.
- Developing and implementing a strategy and plan to create a sustainable service

In order to meet the challenges, a Gastroenterology Governance Group was formed and a plan to implement the review recommendations commenced.

The recommendations were categorised under four headings, these being Leadership, Demand/Capacity Management, Information Management and Quality Improvement. Over the past year, significant progress has occurred to implement the recommendations including:
Leadership –
There has been increased dedicated leadership time for the Clinical Head of the service, together with a review of senior medical staff workload and job sizing. This has identified gaps in resource availability and led to a review of General Medical cover provided by the Gastro Senior Medical Staff. An additional Senior Medical and Fellow have been recruited.

The service has implemented the Endoscopy Lead and Endoscopy Training roles; as per the National Endoscopy Quality Improvement Programme (NEQIP), and also established new role of service Delivery Manager to manage the day-to-day operations of the service.

Demand and Capacity Management –
A GP Liaison was seconded to work with Senior Medical Staff on referral grading and management with on-going review of all referrals. Virtual clinics are now implemented - reducing the number of patients needing to be seen by the service and giving GPs a plan for care, along with GP education sessions by Clinical Head and GP Liaison on the use of the new guidelines.

Modelling, a production planning process and utilisation review have been completed – and these helped identify the resource requirements, staffing, facilities, and equipment needed to manage future workload including waiting lists. As a consequence, productivity improvement has been demonstrated and outsourcing of some procedures commenced.

Information Management –
The service IT system, data and reports have also been reviewed, data integrity cleaned up, and new reports developed and implemented. IT systems now support a new production planning tool, along with routine data and reporting. In the coming year, an agreed clinical IT system (Provation) will be upgraded in conjunction with Auckland DHB and Waitemata DHB.

Quality Improvement Recommendations –
Implementation of the National Endoscopy Quality Improvement Programme (NEQIP) and Global Rating Scale (GRS) has commenced. As part of the NEQIP; assessments of the services progress have been conducted, with a baseline set in September 2013 when the programme started and repeated in March 2014 as a progress report. There are six domains of patient care which are measured:

- Consent processes,
- Patient Safety,
- Comfort during Procedure,
- Quality,
- Appropriateness of Treatment/Procedure, and
- Communicating Results.

CM Heath has improved in three domains, by one point for comfort and appropriateness and two points for communicating results to patients. CM Health results are as follows:

**September Baseline Results:**
A-100%  B-75%  C-50%  D- 25%  Achievement

**March Status Results:**
A-100%  B-75%  C-50%  D- 25%  Achievement
Future Focus

Work planned for 2014/15 includes:

A review of all systems and processes is already underway, commencing with referrals management.

- New processes have been recommended including centralisation of all referrals management in Gastro Service and a new role of Referrals Coordinator has been implemented.
- Further processes are to be implemented within the National Patient Flow project to be complete by 1 July.
- The Patient Journey or end-to-end process is under review to improve efficiency and patient satisfaction continues.

The development of additional theatre and workforce capacity is a local, regional and national issue. Counties Manukau Health is playing a leading role in developing solutions to address these complex problems and thus deliver a more timely and responsive service to patients.

Infection Services:

New Structure

‘Infection Services’ encompasses: a) Clinical Infectious Diseases, b) Microbiology, c) Pharmacy support for infectious diseases and antimicrobial stewardship, d) Outpatient intravenous antimicrobial service (OPIVA) and e) Infection Control and Prevention. All these services are involved in the diagnosis and management of infections (and in the prevention of antimicrobial resistance – a major health issue). These component units have traditionally been separate services with variable coordination and communication.

In 2014, these services have been brought together into ‘Infection Services’ to help coordinate and streamline CM Health approach to Infection. A Clinical Director provides clinical leadership and strategic direction, assists and reports to management and liaises with other services. Weekly meetings of the Infection Services decide on priorities and action.

Achievements in 2014 include:

- Integration of Infectious Diseases and General Medicine for care for in-patients proposed to occur late in 2014 with a House Officer shared with Rheumatology pending allocation decisions.
- Identification of services that can be ‘repatriated’ to CM Health; to provide closer, more convenient, more integrated care (e.g. HIV clinical care).
- Closer liaison with other services (e.g. orthopaedics, surgery, haematology regarding protocols, adherence to surgical antimicrobial prophylaxis requirements (i.e. HQSC); and management of infections (e.g. Prosthetic joint infections).
- Promotion of the staff influenza immunization campaign and planning of management of influenza cases.
- Liaison with Community Clinical Pathways groups regarding antimicrobial use.
- Automation of some testing, and employment of further microbiologist in laboratory.
- Surveillance of antimicrobial resistance patterns to inform antimicrobial guideline revisions.
- Antimicrobial Guidelines and Antimicrobial Dosing revisions. New guidelines (e.g. asymptomatic bacteruria, hospital-acquired infections).
- Antimicrobial Stewardship Rounds.
- Revision of Peripheral IV cannula protocols.
In addition, Infection Services continues to promote the Outpatient Intravenous Antibiotic (OPIVA) service with over 10,000 bed-days “given back” to patients with care in community in 2013/2014, provide Clinical Surveillance of Multi-resistant Organisms (MRO) and outbreaks, with reinforcement of importance of screening.

In the last year, the team has commenced the audit and surveillance of Hip, Joint and Caesarean surgical antimicrobial prophylaxis and Surgical site infection rates, and continues to champion the campaign for further Hand Hygiene improvement – with new target 75%.

**Future focus**

The service is proactive in development of regional and inter-DHB antimicrobial stewardship sessions to address issues are planned for second half 2014.

The work programme also includes

- Examination of roles and capacity regarding environmental cleaning to manage MRO spread/outbreaks.
- Better integration and use of databases in managing infections (e.g. microbiology data integration) with Infection Control surveillance underway is in early planning an with IT partner.

**Radiology:**

**Radiology Alerts System**

Radiology performs approx. 190,000 procedures a year for which a Radiologist provides a report on the procedure. Referring clinicians receive these reports and act accordingly.

It was identified that the timeliness of action taken by a clinician, when potentially significant or unexpected findings were uncovered by a Radiologist, could be improved through alerting the referring clinician to these findings. This mainly relates to elective procedures referred by a CM Health clinician in the out-patient setting or a General Practitioner. Referring clinicians receive a phone call for urgent findings. A formal audit of the system is on-going. However, data from Q1 2013 and Q1 2014 showed a 25% increase in usage of the Alerts system and an increase of 13% in read receipts (acknowledgement of the Alert communication). Feedback obtained both from referring clinicians and Radiologists has led to refinements in the Alert process and development of further reference tools which assist decision making.

**Investing in Radiology services**

Through the Improving on Excellence programme CM Health have increased capacity at the Middlemore Hospital Radiology Department to deliver CT and MRI scanning services directly to its patients and referrers. On the 1 April 2014, the Radiology service began additional services from an additional site on the hospital campus (Building 58) equipped with a 16 slice CT scanner and a 1.5T MRI scanner. This provides a total of 3 CT scanners and 2 MRI scanners available.

This new site is beneficial for our patients who report the free parking, easy access and calm environment reduces stress attributed to attending a scan appointment. The 1.5T MRI scanner will be replaced by a new 3T MRI scanner during 2014, and a new CT scanner will be placed into the Emergency Department in early 2015. This will further improve the service to patients and will assist in retaining and attracting the highest calibre of staff.
DEVELOPING FACILITIES FOR THE FUTURE

Harley Gray Building:

Kidz First Neonatal Care

In February 2014, Kidz First Neonatal Care moved to a new facility in order to remain close to Obstetric Theatres. A Neonatal Intensive Care was established with 18 individual cot spaces, intensive bedside monitoring systems, dedicated computer workstations and write-up areas. Comfortable seating and support spaces mean that parents and nurses can be close to babies. In May 2014, 20 Neonatal Special Care cots were relocated in a dedicated environment complete with a shared staff hub and dedicated family support areas.

As part of these improvements, 28 state-of-the-art infant transport resuscitaires (‘Giraffes’) have changed how and where specialty neonatal nursing is provided. Kidz First’s most fragile patients can now be resuscitated, warmed, weighed, transported and nurtured in the same cot without interruption to their care for the duration of a Neonatal Intensive Care admission.

Generous community donations enable us to create a place of calm and serenity. Rooms for overnight accommodation and family lounges have been lovingly furnished to create a sense of relaxation and comfort for families that are with us for extended periods of time.

Operating Theatres and Sterile Supply

February 2014 was a milestone month for the CM Health and particularly the Surgical and Ambulatory Care services, with several years of planning culminating in a very successful move to the new operating theatre suite and central sterile supply department (CSSD) in the Harley Gray Building.

There were three main parts to the planning, each of which involved many teams of staff working above and beyond their business as usual. Sincere thanks go to all these people for their passion and commitment, their willingness to ‘go the extra mile’. The first part was the planning of flows, systems and processes to optimise the patient experience and maximise the efficiency of the new operating layout and design. Over the previous 12-18 months, several work-streams had reviewed models of care, patient flow and processes, challenging the status quo and looking at innovative ways to make improvements. In
addition, there were several months of detailed planning to prepare for the actual migration from old areas to the new building which took place over the weekend of 14-17 February.

Intensive orientation of all staff members to the new clinical areas, including sophisticated simulation training of 300 staff over two Saturdays and three full days prior to the move, to test new processes and flows ensured that staff were fully trained in the new environment.

As a result of all this careful planning, the move went very smoothly with positive feedback from everyone. Staff are very pleased with their new workplace, with the main challenge being the much larger size of the operating theatre suites and travel distances required.

**Video-conferencing from theatre**

On 17 May 2014, the first videoconferencing session from the new theatre complex in the Harley Gray building at Middlemore Hospital occurred.

A teaching sialendoscopy list was carried out in theatre 14 and the procedure was transmitted to separate meeting rooms on and off site. The sophisticated equipment allowed a direct feed from the scope, which could be interchanged with the theatre camera in the theatre lights, and two-way voice communications. There was also the ability to record the images on DVD for future teaching.

The videoconferencing was a great success. All the theatre staff, IT staff and engineering support staff were great. Professor Francis Marshal, a world renowned visiting Professor from Geneva was very impressed with the facility.
Medical Assessment

The 42 bedded Medical Assessment Unit opened on 31 March 2014. All acute patients access Medical Assessment via Emergency Care triage and can be direct referrals from GPs or patients presenting to Emergency Medicine for medical care. The aim of the Medical Assessment (MA) is to

- enable medical patients presenting acutely to the hospital (triage category 3-5) to be assessed in a single geographic area
- to increase the number of medical patients discharged home from the “front of the hospital” through the use of an ambulatory model
- to keep medical patients needing a stay of less than 28 hours in a dedicated short stay area to facilitate timely discharge.
- to reduce the number of medical patients admitted to the wards who can be managed in a short stay area.

![Average ADULT Daily EC Presentations in last 12 weeks](image)

Figure 19. Adult EC presentations average 2009-2014

Early 2014 results show that the wards admission rate has fallen from 40.2% to 38.6%, despite an increase in the number of daily presentations to Emergency Care. More patients are been managed without a ward admission. In April, May and June 2014, the medicine teams discharged over 400 patients per month from the ‘front’ of the hospital, almost double the number of patients who had been discharged this way in previous months.

Other benefits include a reduction in the number of patients needing a length of stay of less than 28 hours being admitted to an inpatient ward. In 2013, 17% of patients admitted to an inpatient ward had a length of stay less than 28 hours. In April 2014 this rate fell to 14.63%, in May it was 13.74% and in June it was the lowest it has ever been at 11.48%. We aim to reduce this further to fewer than 10% of medical admissions.

Discharge Lounge

As part of CM Health’s planning for increased demand for beds over winter, a discharge lounge servicing all of Middlemore Hospital opened on May 26 2014. This initiative is being piloted for a period of 3 months, during which time it has replaced the discharge lounges that were operating within other areas of the hospital. The key objectives for the development and utilisation of the pilot discharge lounge include:

- Timely ward admissions through early discharge
- Timely transfers enabling efficient patient flow between departments
• Patients are admitted to the right ward
• Goal of 40% of patient discharges by 1100hrs daily
• Ambulance patient transfers/pick-ups are centralised through the discharge lounge.

In the first 5 weeks, to the end of June, 760 patients discharged via the Discharge lounge. Data shows increases in patients being discharged before 11am. By moving patients who are ready for discharge into the lounge from the wards, more beds are being freed up earlier in the day which has improved patient flow. Earlier discharges have also enabled more patients being admitted to the right ward, so more patients are receiving the right care, in the appropriate ward environment. Discharges are increasing before 11am.

![Figure 20. Trends for patients discharged before 1100 and 1400 hours (Note Discharge Lounge opened week 22)](image)

Over 70 ambulance transfers from the lounge occurred in the first 5 weeks. The discharge lounge location being near the entrance to the Edmund Hillary Building, and an ambulance bay at the door, the focus on a centralised pick-up point has allowed for improved efficiencies for ambulance staff. It has also been more convenient for family/friends to use the pick-up/drop off parking outside the hospital’s main entrance to collect patients ready for discharge within the 15 minute timeframe for free parking at Middlemore.

A evaluation of the trial is currently underway with the trial finishing at the end of August 2014. Real time patient feedback, via a survey being completed in the lounge, has shown that patients have been extremely positive about their experience in the discharge lounge and what the lounge offers.
Overall, our priorities for improvement for the coming year will need to support our strategic programme and/or to be focussed on increasing our capacity to meet major current or imminent challenges.

Those challenges include the combination of rising costs, increasing financial constraints and escalating targets and demand, threatening the affordability and sustainability of services. Improving the quality and safety of healthcare becomes even more important in those circumstances, as it is critical to ensure that every health dollar spent is as effective as possible and that waste is minimised.

Some priorities for improvement are extensions of existing service improvement work, such as programmes to reduce acute demand, further improve elective surgery performance and increase community access to diagnostic and enhanced specialist services delivered in hospital and community outpatient settings. Many of these are highlighted in the Accounts with a ‘future focus’ section.

Others, such as the Safety in Practice with Primary Care the Perioperative Safety Campaign are building momentum and will be key areas of focus in 2014/15. The priorities we have outlined below are two major area for key changes to the way that people experience health care. More will emerge over coming months.

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**Project SWIFT: System-wide Integration for Transformation**

During 2013/14, CM Health, with support of the Ministry for Business, Innovation and Employment (MBIE), led an extensive procurement process to seek an information communication technology (ICT) strategic partner for a transformational change programme.

This programme is to enable a community focus redesign of health care delivery or ‘new model of care’ and operational and clinical effectiveness across acute, elective and outpatient care.

IBM was selected as the preferred supplier due to their wide international experience in leading successful IT enabled change programmes. In May 2014 CM Health, NZ Health Innovation Hub and IBM NZ signed a strategic relationship agreement.

The first commercial delivery of this agreement is stage 1 of a 3 stage mobilisation period called the Joint Validation Period (JVP). This 12 week programme will seek to identify problems and challenges experienced across the Counties Manukau health care environment, identify areas of opportunity for significant improvement and develop an investment roadmap over a 4 year period with high level indicative business cases. The JVP was kicked off on June 3 2014 and concludes in Aug/Sept 2014.
CM Health will then consider if there is sufficiently high value in continuing with the partnership to enable the change required, recognising this work is across people, process and technology and therefore requires district-wide support and a long term investment.

“Project SWIFT is about improving patient care and experience by providing patients and clinicians with the right information at the right time in the right place. Technology is one of the tools that will allow this to happen, but the real improvements will occur when we look at how we currently do things and ask if we can do them better with the right IT to enable change”

Stuart Barnard, Clinical Director Information Service, CM Health

For more information – go to the Counties Manukau Health website or follow the link Project SWIFT

Capturing Consumer Experience

Understanding the consumer/patient experience is vital to improving patient safety and the quality of service delivery. It has been shown to be a sound indicator of the quality of health and disability services.

Growing evidence indicates that better experience, developing partnerships with consumers, and patient and family-centred care are linked to improved health, clinical, financial, service and satisfaction outcomes. Integrating the lessons from patient experiences in a quality improvement programme increases the chances of service improvement.

In addition to on-going work and training on co-design with patients CM Health has commenced a new initiative. Adult patients are sent a Consumer Satisfaction survey when discharged either by email or sent a link to the survey by text. Results from the survey will be utilised at all levels of the organisation - from Executive through to Charge Nurse Managers to address issues identified by patients and ensure these are incorporated through quality improvement initiatives. Currently only inpatients are sent the survey but this is to be rolled out to outpatients.

Health Quality and Safety Commission - National Survey: This starts in August and with 400 patient contacts each quarter, a variety of communication methods will have to be used – email, text and letter.
CAPABILITY DEVELOPMENT

Ko Awatea

Ko Awatea is the Centre for Health System Innovation and Improvement at the Counties Manukau District Health Board. It sits at the heart of activities to improve value for money and to support the transformational change needed to keep pace with the demand for more and better health services managed within tight financial constraints.

Ko Awatea comprises the Ko Awatea Centre for Education and Innovation (a joint venture between CMDHB and AUT University, Manukau Institute of Technology, and the University of Auckland), the Health System Improvement Team, and three key focus areas:

- Building Capability
- Health Intelligence and Informatics
- Development and Delivery

In addition to its three education partners, Ko Awatea has strategic partnerships with the Institute of Healthcare Improvement (IHI), NHS Wales, and the Better Value Health Care.

Innovation, improvement and capability building are critical to achieve transformation and all staff across CM Health need to look for new, improved ways of using our resources to deliver the best services, every day. Creating understanding among healthcare professionals of the need for innovation and improvement is a key step in achieving healthcare transformation. Ko Awatea works with staff to build their capability, thereby enabling innovation and improvement within their services.

Ko Awatea focuses on cultivating and sustaining improvement in a variety of healthcare work environments and across diverse workforces.

Ko Awatea hosts a large number of local, national and international visitors and events at the Centre, such as visiting chairs and international experts and faculty, as well as the Asia Pacific Forum.

Asia Pacific Forum on Quality Improvement in Healthcare

In September 2013, we partnered with the Institute of Healthcare (IHI) and the Health Quality and Safety Commission and held our second annual conference at Sky City Convention Centre. The event attracted more than 1,000 delegates from 23 countries. After a successful two years in Auckland, Ko Awatea is again partnering with the IHI to present the 3rd APAC Forum in Melbourne from the 1-3 September 2014.

www.APAC-Forum.com
Key events in 2013/14 year - Visiting Experts

Ko Awatea has also continued to host a large number of local, national and international visitors, and has also built a strategic and close working relationship and partnership with the Institute for Healthcare Improvement (IHI). Professional development opportunities offered over 2013/14 included workshops and seminars given by visiting (and resident) academic and clinical leaders, as outlined below.

<table>
<thead>
<tr>
<th>Title</th>
<th>Seminar /workshop</th>
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| Dr Lynne Maher  
Director of Innovation, Ko Awatea & Associate Honorary Professor of Nursing The University of Auckland | Sustainability and Spread of improvements  
Creativity and Innovation  
Transforming Patient Experiences |
| Dr Chris Wasden  
Managing Director, PwC | Application of Social, Mobile, Analytic and Cloud technologies |
| Bernie Harrison  
Consultant in Improvement and Safety | Patient Safety |
| Dr John Ovretveit  
Director of Research, Professor of Health Innovation Implementation and Evaluation, at the Medical Management Centre, Karolinska Institute, Sweden. | Evaluating Return on Investment for Improvements  
Implementation Research Methods |
| Dr Brian Robson  
Executive Clinical Director, Healthcare Improvement, Scotland | Data with the Tears Wiped Off |
| Jim Hester, Ph.D.  
Director of the Health Care Reform Commission for the Vermont State Legislature. | Create and diffuse an enhanced primary care model  
Community health system infrastructure and financial model supporting improvements in population health |
| Paul Grundy  
IBM’s Global Director of IBM Healthcare Transformation | Patient Centred Medical Home |

Patient and Whaanau Co-design

The experiences that patients, the public and healthcare staff have when they receive or deliver healthcare services are a valuable source of information that is being used to transform services.

The ability to co-design with patients forms an integral strand of our capability building and 336 people including staff and patients have participated in training events. A six month action learning programme has involved 13 project teams that have co-designed in a variety of services including mental health, outpatients, community care, transgender youth and critical care services.

Improvement Advisor Programme

Participants from across New Zealand and Australia completed the Improvement Advisor Programme in January 2014. Participant projects included prevention of Central Line Associated Bacteraemia, Inpatient Diabetes Management, and How to Improve the System of Volunteer Recruitment and Administration.
Leadership Academy

The Ko Awatea Leadership Academy is designed for emerging multi-disciplinary leaders in health care (clinical, managerial and support staff). The programme is aimed at building leadership capability throughout our organisation and creating a pipeline of highly capable, innovative and engaging leaders who have the skills and passion to lead health system transformation into the future.

The Leadership Academy was launched in May 2013 with the Fundamentals of Leadership Course. The course consists of 12 sessions over six days; with topics ranging from finance and human resources to strategy and systems theory, diversity and reflective practice.

The more intensive part of the Academy is the Core Leadership Development Programme and the first programme was delivered in 2013. This is providing participants with intensive 10 month training resulting in a Post Graduate Certificate in Public Sector Leadership from the University of Waikato.

Undergraduate Education

An intrinsic part of Ko Awatea is the Ko Awatea Centre of Education. This facility was purpose-built for Ko Awatea. It provides a social learning space with a lecture theatre, breakout rooms and teaching spaces.

Ko Awatea continues the successful joint venture education partnership with the University of Auckland, Manukau Institute of Technology, and Auckland University of Technology. Students from Auckland University of Technology (AUT), Manukau Institute of Technology (MIT) and The University of Auckland began using the centre from August 2011. Over 1,500 Nursing, Midwifery and Medical learning events were held in Ko Awatea in 2013/14.

The Health Science Academy programme

The Health Science Academy continues in two South Auckland schools in partnership with CM Health. The programme focuses on supporting Māori and Pacific students who have an ambition to enter tertiary health study and have a career in health. The first cohort has seen 21 students going to tertiary-level health studies. When they successfully complete studies, they will be offered employment by CM Health.

Workforce development and training

CM Health Training

CM Health and Ko Awatea continue to invest in the personal and professional development of staff, with a range of development courses including a focus on communications, diversity, mindfulness, management, leadership and service-specific training. Many sessions are attended by staff from other organisations.

- During 2013, 88,893 hours of development activity were delivered across 180 learning events.
- CM Health also engaged in a Tertiary Education Commission Workplace funded Language, Literacy and Numeracy programme, with 58 staff staff completing 1760 hours of training to date.

The E-Learning programme offers employees flexible and convenient learning options. In 2013, an estimated 12,000 hours of training was completed including:

- Patient Safety (3,000 completions)
- CALM (500 completions)
- Medication Certification (300 completions)

CM Health in-house career development service was utilised by 42 staff, with over 1,000 staff also using the CAREERCentre, the CM Health online career management tool.

CM Health Professional Development Recognition Programme (PDRP) for Nurses has a compliance rate of 87% (2391 nurses), the highest across all DHBs nationally.
**Primary Health Organisation (PHO)**

**ProCare** run a large continuing education programme for its contracted GPs, practice nurses and other staff.

During 2013 / 2014 ProCare ran 108 education meetings in the Counties Manukau region including 88 small group education meetings and 20 larger meetings. The small group meetings comprised 62 General Practitioner meetings, 22 practice nurse meetings and 4 practice manager / administrator meetings.

The 20 larger group meetings included:

- ProCare Nursing Professional Development and Reaccreditation programme (PDRP) meetings (x3)
- ProCare General Practice Assistant (healthcare assistant) meetings (x3)
- Long Term Conditions meetings (x4)
- Motivational Interviewing training (x3)
- Phlebotomy Training (x3)
- Intravenous cannulation (x2)
- Immunisation (x1)
- Flinders Self-Management Training (x1)

**East Tamaki Health Care** is now in its third year of cycles of improvement in pre-hospital urgent care.

Traditionally, training for staff in pre-hospital urgent care has been through skills labs where principally doctors learn the skills required for advanced cardiac life support (ACLS).

Resuscitation Skills provides advanced cardiac life support training not only to clinical staff at Auckland City Hospital but also to General Practitioners, nurses, receptionists, clinic managers, undergraduate nurses and undergraduate medical students working in primary care. The whole team is involved and is challenged, using their own equipment and clinical setting to work as a well-oiled machine.

Medical emergencies, all over the world, can be scary and chaotic. Mastery takes lots of practice and the skills can be quickly forgotten if not used regularly. This is a challenge for all Primary Care teams, as these situations do not happen as frequently in Primary Care as they do in the Emergency Care department.

The audit and quality improvement checklist process reviews facilities, the resuscitation room, and equipment. Several different ACLS scenarios are presented, using a patient simulator that can talk, make noises, has a pulse, can breathe, can wheeze and can also be treated with a defibrillator during a heart attack. Airways and intravenous lines can also be inserted and medications given. The staff and students have found the learning experience invaluable and the teams and patients are seeing and experiencing positive outcomes as a result. This quality improvement activity is supporting safer primary health care through better pre-hospital urgent care.

**Maaori and Pacific Recruitment and Retention Strategy**

The strategy outlines intentions to increase the numbers of Pacific and Maaori employees at all levels of CM Health to better reflect the demographic of CM Health community through a “Grow our Own” strategy. A consultation document and overarching Pacific and Maaori recruitment strategy has been established. The actions from the strategy document will be implemented throughout 2014/15.

**Workforce planning and modelling**

CM Health strives to establish an optimum configuration for the delivery of learning and development for all staff and has undertaken a review of professional development team structures for Nursing, Midwifery, and Mental Health. A review of statutory training was completed in June 2014, with a series of recommendations made, including integrating systems to enable better reporting and compliance measurement.
Baseline analysis and profiling of the CM Health workforce has been completed. Further work is underway to develop a model to generate future workforce projections based on clinical and patient data, an agreement to utilise patient and clinical data across the care continuum has been agreed in principle.

**Medical Training Capability Developments**

**Summer Studentship**

During the summer each year, up to six under-graduate medical students (Years 2-4) from the University of Auckland and Otago University are funded by CM Health to undertake research projects.

These research projects take place under the supervision of a senior clinical, biomedical or public health researcher. The aim is to expose students to high quality clinical research methods and to support CM Health researchers in their work. The award is sponsored by the Chief Medical Officer (Hospital Services).

The posters completed as part of the project, are judged against the other summer studentship posters at the Science Fest and the student with the best poster receives a $1500 prize.

This year, the winning poster was titled “A retrospective study of Aspirin Use and Staphylococcus aureus Colonisation in the Dialysis population of Middlemore Hospital”

**House Officer Orientation program**

All new House Officers participate in a week long orientation programme prior to starting, to help familiarise them with this CM Health. A formal welcome is provided by Kaumatua of CM Health at the marae then there are presentations by various departments about key operational information.

These are mixed in with clinical skills refreshers to boost confidence in the young doctor’s as well as meet Medical Council requirements for training in Advanced Cardiac Life Support. The week ends on an afternoon on the wards with the medical teams that they will be working with in the following weeks for an early introduction.

There is also a “Thank You” dinner, held in Ko Awatea for the outgoing cohort of first year Trainees and to welcome the new group. Prizes are given for the House Officer of the year.

**SAFESHOP programme**

The SAFESHOP programme is one of three House Officer Workshops spread throughout the first (PGY1) training year. The focus of this two day small-group workshop is to introduce junior staff to the concepts of quality improvement, with particular focus on ensuring safe patient care and training on medical error reporting. One of the main exercises was use of root-cause-analyses of adverse medical outcomes and how that can lead to changes in the organisation and de-emphasises individual blame.
New RMO Handbook
The RMO Handbook has been a long used source of reference for the House Officers at Auckland City Hospital - since 2001. This year, CM Health collaborated with Auckland DHB to produce the 6th edition for use at both DHBs.

The targeted audience is the first year house officers who seeks readily available, locally appropriate clinical information; but has also been useful for a range of other clinical staff. The result of this collaboration is a CM Health specific version that contains references specific to the policies and guideline of Counties Manukau.

In line with increasing digital age, the 6th edition is only available electronically as a fully indexed and searchable PDF; this can be accessed from any computer on the CM Health network. In addition, it can also be downloaded to a personal electronic device for use offline.

Research Office
The Research Office provides support for all research activity involving Counties Manukau Health patients and/ or their family/ whaanau, staff or facilities. In addition to ensuring all research complies with governance requirements, the office also assists with all aspects of undertaking research. The Office has strong relationships with internal and external stakeholders and works collaboratively to support research at the CM Health. This includes advice on obtaining local and ethical approvals, protocol development including design and analysis, statistical support writing, and identification of funding opportunities.

Between 1 July 2013 and 30 June 2014
234 research projects were approved to proceed, compared to 187 approved to proceed in 2012/ 2013 - a 25% increase.

Key Achievements in 2014
Supporting Research Activity - The Research Office continues to provide support in building research capability at Counties Manukau Health. In addition to provide one-to-one support and coaching to researchers, the Research Office has delivered seminars for staff on how to plan, undertake and deliver research, and the CM Health clinical research process and support available for staff

The Research Office Biostatistics team have held a number of clinics available to all researchers at Counties to support the planning, analysis and writing up of research including training to staff on research design and analysis skills.

The Tupu Research Fund - The Research Office supports the operationalization of the Tupu Research Fund which supports new and emerging researchers lead their own research and experienced researchers in making applications to large external funding bodies. The fund also assists with dissemination of research findings by funding costs associated with presenting research at conferences.

Two Emerging Researcher grant rounds enabled five researchers to receive funding for projects including:

- A qualitative exploration of the experience of diabulimia in people with insulin dependent diabetes
- A study investigating the prevalence of spinal pathologies among patients undergoing magnetic resonance imaging (MRI) for low back pain
- A study exploring the efficacy of the LNG-IUS (MirenaTM) in obese women with abnormal uterine bleeding.

In addition, three researchers have received funding to present their research at conferences.
In collaboration with the Centre for Clinical Research and Effective Practice, the Research Office has provided a one-off project grant to support a study exploring rhinovirus and pneumococcus as pathogens in Counties children under 2 years old with lower respiratory tract infection.

**Future Focus**

The Research Office continues to explore opportunities for developing research capability at Counties Manukau Health, growing collaborations with external research partners and improve our dissemination and celebration of research.

In addition, the Research Office has been exploring mechanisms for

- improving the capture of all research related activity that CM Health is involved in,
- increasing the efficiency in which research activity is approved to proceed

**Centre for Clinical Research and effective practice**

The Centre for Clinical Research and effective practice (CCRep) was established in 2001 to administer commercial drug trials on behalf of Counties Manukau Health (CM Health). CCRep is an independent legal entity operating as a Charitable Trust. CM Health has representation on the Board of Trustees, but there is an independent Chairman and majority of independent trustees. The CCRep trust deed provides that CCRep should support clinical research in South Auckland. CCRep has premises at Middlemore hospital.

CCRep signs Clinical Trial Agreements as the institution and assumes legal and financial risk. CCRep carries extensive public liability insurance cover and indemnifies CM Health.

The Division of Medicine accounts for 85% of the drug trials administered by CCRep with more than 80% of business in the key therapeutic areas: diabetes and metabolism; cardiology; respiratory; and rheumatology.

Currently, there are 35 active investigators, 26 recruiting drug trials and 30 trials in follow-up (annual revenue $2.4 million). Investigators are CM Health senior Clinicians who conduct research as part of their non-clinical contact time. CCRep also administers Public Good Research Fund grants (e.g. Health Research Council, NZ Heart Foundation, and Auckland Medical Research Foundation) for CM Health.

Currently, there are 9 active grant studies (annual revenue $2.0 million) in the key therapeutic areas of child health, cardiology, respiratory medicine, and renal medicine. CCRep employs 37 support staff as research coordinators, finance, management, and regulatory affairs. Surplus funds when drug trials are completed are held in trust to support new academic and research activities. Currently, CCRep holds more than $3.2 million in trust in departmental and individual study accounts.
Science Fest 2014

Science Fest 2014 is the CM Health annual celebration of the quality, innovation and research that is occurring within our organisation and beyond.

The winners were:

**Category 1: ‘Clinical Excellence’**
- **Poster Presentation** “Effect of Delayed Cord Clamping on Breathing and Transition at Birth in Very Preterm Infants” - Elizabeth Nevill.
- **Oral Presentation** “Early Support Discharge for Stroke” - Amanda Shapleski.

**Category 2: ‘Education Excellence’**
- **Poster Presentation** "Flipped Classroom Approach to In-house Teaching in the Emergency Department" - Eunicia Tan and team.
- **Oral Presentation** “A Randomised Parallel-Group Study of Group Education vs. Standard Care in Subjects with Type 2 Diabetes” - Bobby Milne and Lynne Ferguson.

**Category 3: ‘Process and Systems Excellence’**
- **Poster Presentation** “The Development and Implementation of a Cardiac Rehabilitation Tracking System” - Andy McLachlan and team

**Category 4: ‘Research Excellence’**
- **Poster Presentation** “THESOS: The Stress of a Smokefree Environment” - Russell Smart and team
- **Oral Presentation** “Use of Heated, Humidified Gas for Stabilisation of Preterm Infants: A Randomised Controlled Trial” - Mike Meyer

**Category 5: ‘Supporting Excellence in Patient and Whaanau Experience’**
- **Poster Presentation** “Sensory Modulation in Mental Health” - Shelley Kennedy and team
- **Oral Presentation** “Kia Kaha” - Leona Didsbury, Pamela Low, Merle Samuels and Gary Sutcliffe

More information can be found at this link [Science fest 2014](#)

### Clinical Excellence Category

<table>
<thead>
<tr>
<th>Title of project or initiative</th>
<th>Early Support Discharge for Stroke</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Lead Author</td>
<td>Amanda Shapleski</td>
</tr>
<tr>
<td>Names of all other project team members</td>
<td>Amanda Shapleski, Deirdre Gough, Jill Grieve</td>
</tr>
<tr>
<td>Brief description of project</td>
<td>The Supporting Life after Stroke established the Early Supported Discharge Project (ESD) as part of the Beyond 20,000 Days campaign. Our aim is to implement a new model of care for patients with mild to moderate stroke living in 5 domiciles in South Auckland so that they can receive specialist rehabilitation services in their own home rather than in hospital. We know that a stroke has a significant impact on the patient and wider family, and that going home from hospital is a momentous step along the road to recovery. We want to ensure that the transition of rehab to the home happens as smoothly as possible. We predict that this model of care will enhance patient experience, speed recovery and improve quality of life for our patients, and as a result we expect to see a reduction in the length of stay.</td>
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</tbody>
</table>
### Education Excellence Category

<table>
<thead>
<tr>
<th>Title of project or initiative</th>
<th>A randomised parallel-group study of group education versus standard care in subjects with type 2 diabetes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Co-Authors</td>
<td>Bobbie Milne, Lynne Ferguson, Whitiora Diabetes Service, CM Health</td>
</tr>
<tr>
<td>Brief description of project</td>
<td>Our hypothesis proposed that group education was a cost effective alternative to individual education. However a meta-analysis reported that lack of follow up demonstrated that improved health related self-management does not persist over the long term (Tang et al, 2005). As sustainability of behaviour change has only been evaluated for short periods such of 6 months or at most a year (Kenardy et al, 2002; Olmsted et al, 2002; Surwit et al, 2002) this research was proposed to examine outcomes over a 2 year period. The research examined the sustained effect of education on clinical outcomes in a 2 year randomised clinical parallel trial of group education versus standard care where we compared changes of HbA1c, cholesterol, weight, BMI and blood pressure in the two groups as well as perception of health status using a standardised, validated diabetes questionnaire from Stanford University.</td>
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### Process and Systems Excellence Category

<table>
<thead>
<tr>
<th>Title of project or initiative</th>
<th>The Middlemore Hospital Emergency Care Dept. Airway Registry: An Innovative Quality Improvement Project</th>
</tr>
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<tbody>
<tr>
<td>Project Lead Author</td>
<td>Andrew Brainard, Emergency Medicine, CM Health</td>
</tr>
<tr>
<td>Names of all other project team members</td>
<td>Vanessa Thornton, Luke Larkin, Debbie Hailstone</td>
</tr>
<tr>
<td>Brief description of project</td>
<td>Middlemore Hospital Emergency Care Dept. created an ED Airway Registry intended to determine the quality and safety of our ED airway care by collecting data on every intubation conducted at Middlemore Hospital Emergency Care Dept. After finding out intubation first pass success rate and adverse event rate were far poorer than other rates in the published literature, we instated a multifactorial, multidisciplinary quality improvement project with consultation anesthetics, intensive care, nursing, and other regional and Australasian Emergency Depts. This involved improving our airway education for our SMO, registrar, and nursing staff, increasing our airway exposure, upgrading and reorganizing our airway equipment, implementing regional ED airway algorithms and pre-intubation checklists, and generally working to change the culture of our ED airway care. After these changes we had large improvements in our first pass success rate and decreases in our adverse event rate. We hope to continue improve our care through our registry and several continuing quality improvement initiatives.</td>
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</table>
### Research Excellence Category

<table>
<thead>
<tr>
<th>Title of project or initiative</th>
<th>Use of heated, humidified gas for stabilization of preterm infants: a randomised controlled trial</th>
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</thead>
<tbody>
<tr>
<td>Project Lead Author</td>
<td>Dr. Michael Meyer, Kidz First Neonatal Care CM Health</td>
</tr>
<tr>
<td>Names of all other project team members</td>
<td>Dr. David Hou, Nazmul Ishrar</td>
</tr>
<tr>
<td>Brief description of project</td>
<td>Admission hypothermia is very common amongst preterm infants and its rate provides a measure of quality of care. Temperatures &lt;36°C are associated with increased mortality. Internationally, at least 25% of &lt;32 week gestation infants are below target (36.5 to 37.5°C). After birth cold, dry gas is used. We hypothesized that supplying humidity from birth would improve admission temperature. Our multi-centre randomized controlled trial, the first of its kind, was powered to detect a 30% reduction in those outside range. 203 infants &lt;32 weeks were randomized. Added humidity reduced those outside range (adjusted OR 2.2 95%CI 1.2-4.3). Fewer infants had admission temperature below 35.5°C with no negative effects. The technique was relatively low cost. Our hypothermia rate is now one of the lowest in the world, demonstrating improved quality of care. Furthermore, the local and international presentation of our results has meant we are informing and guiding best practice.</td>
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### Supporting Excellence In-Patient and Whaanau Experience

<table>
<thead>
<tr>
<th>Title of project or initiative</th>
<th>Kia Kaha Programme</th>
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<tbody>
<tr>
<td>Project Lead Author</td>
<td>Leona Didsbury, East Tamaki Healthcare</td>
</tr>
<tr>
<td>Names of all other project team members</td>
<td>David Codyre, Pamela Low, Gary Sutcliffe, Merle Samuels, East Tamaki Healthcare Jacqueline Schmidt-Busby Ian Hutchby Ko Awatea</td>
</tr>
<tr>
<td>Brief description of project</td>
<td>The impact of a long-term health condition on individuals, a whaanau and health system is significant, even if well-managed. With additional psychosocial and mental health or addiction complexity, there is an increased risk of higher admission rates, length of stay in hospital and use of outpatient services. Due to related stress and distress, there is further risk of individuals “disengaging” from healthcare services, becoming “deactivated”, and experiencing a lack of coordination or “disconnection” in the healthcare setting. This project supports individuals experiencing chronic illness and complex needs who become frequent users of emergency care. Operating as a peer-professional team, our work is informed by health psychology and self-management principles and interventions. Whilst emphasising “patient voice, patient choice”, we seek to engage and connect patients with healthcare services. Our goal is to support an activated patient in an activated service while decreasing emergency care and enhancing well-being for patient and whaanau/family.</td>
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CM Health 2014 final draft
Congratulations to our Science Fest 2014 Winners

Category I: Clinical Excellence - Oral Presentation Winner:
Amanda Shapland for her presentation on “Early Support Discharge for Stroke”.

Category II: Education Excellence - Oral Presentation Winner:
Bobby Miller and Lynne Ferguson for their presentation on “A Randomized Parallel Group Study of Group Education vs Standard Care in Subjects with Type 2 Diabetes”.

Category III: Process and Systems Excellence - Oral Presentation Winner:
Andrew Brashard for his presentation on “The MHF ED Alumni Registry: An Innovative Quality Improvement Project”.

Category IV: Research Excellence - Oral Presentation Winner:
Mike Mayer for his presentation on “Use of Heated, Humidified Gas for Stabilization of Premature Infants: A Randomized Controlled Trial”.

Category V: Supporting Excellence in Patient and Whaana Experience - Oral Presentation Winner:
Leena Dobbs, Pamela Dow, Merle Saville and Gary Sutcliffe for their presentation on “Kia Kaha”.

Poster Presentation Winner:
Elizabeth Rohrer for her presentation titled “Effect of Delayed Cord Clamping on Breathing and Transition at Birth in Very Preterm Infants”.

Poster Presentation Winner:
Erika Tan and team, for their presentation titled “Tipped Classroom Approach to In-house Teaching in the Emergency Department”.

Poster Presentation Winner:
Andy MacLellan and team for their presentation titled “The Development and Implementation of a Cardiac Rehabilitation Tracking System”.

Poster Presentation Winner:
Russell Smart and team for their presentation titled “THEOS: The Stress of a Smoke-Free Environment”.

Poster Presentation Winner:
Shelley Kennedy and team for their presentation titled “Sensory Modulation in Mental Health”.

The Great Debate: “Rugby Racing and Beer”
A great debate in the SAMH, how the whole hot meals and it's only past time we gave them up.
- Adjudicator: Glenda Johnson
- Defending Team: Karen Coldwell, Randell Morton, Cathy McRae (Winners)
- Negating Team: Hilary Blacklock, Andrew Connolly, David Galler